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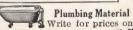
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KEITH'S MAGAZINE

ON HOME BUILDING

WITH WHICH IS CONSOLIDATED

THE JOURNAL OF MODERN CONSTRUCTION IDEAL HOMES MAGAZINE

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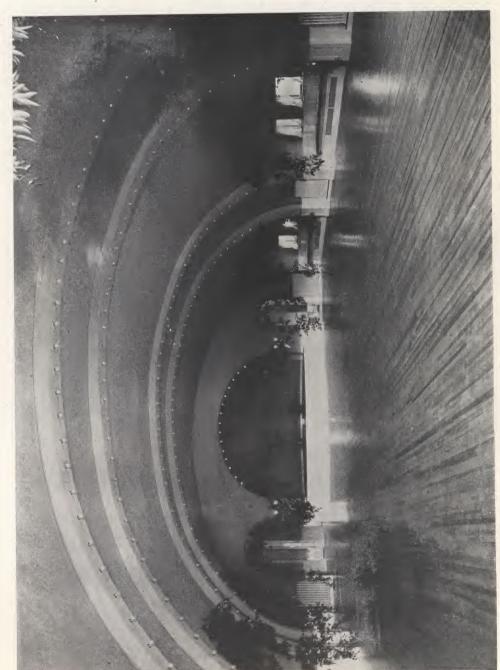
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BALL ROOM IN THE GEORGE W. PARTRIDGE RESIDENCE, MINNEAPOLIS.

KEITH'S MAGAZINE

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No. 6



BUNGALOW OF WM. BARNES, JR., ALBANY, N. Y.-MARCUS T. REYNOLDS, ARCHITECT,

The Individual Note in the House

By E. I. Farrington



HERE used to be much in the public prints about the personal equation, which often meant little but sometimes much. It is the

same in the planning and building of a house. The owner or his wife may have many ideas about what the house ought to contain, all of which are conventional and trite, or, on the other hand, may have suggestions which will fairly lift the house out of the level of the commonplace

IERE used to be much in the and stamp it with distinct individuality.

The individual note is one of the most charming features of houses one occasionally visits. It is true that the credit sometimes belongs to the architect alone, that the individuality which is expressed is that of the designer, but there are other instances, fortunately, where the architect has been capable of developing the thoughts of the owners in a most delightful way, so that the house makes a per-

fectly natural background for the latter's personalities.

In Illustration No. 1 the individual note has been struck in a felicitous manner. Doors and doorway are architectural assets which have been prized all down through the centuries. Architects love to fall back on colonial designs, even when fitting out modern dwellings.

In this case a very modest entrance is

struck. There is a knocker on this door, of course, although if one looks carefully he will find an electric button at the side for actual use.

However it may be secured, this individual note is expressed in that which is unconventional and yet neither bizarre nor tawdry. Take the fireplace in Illustration No. 2 as an example. Quite unusual in its treatment, there is no sugges-



FIREPLACE WITH INDIVIDUAL CHARACTER.

so delightful that the eye keeps returning to it. Probably the arrangement of the side windows and the hood have much to do with the total effectiveness, but the seats at the side surely help and the lantern is not to be overlooked. The door itself is charmingly designed—it is not a common door. Yet the reader should not understand that good doors must be made to order. Much attention has been given ready-made doors of late years and among them are some which will fit into almost any scheme without smothering the individual note, if it has fortunately been

tion or inharmony or straining for odd effects. It is in perfect keeping with the modest living room and does not dominate the room to an oppressive degree, yet it gives the whole apartment character.

This fireplace opens into a chimney built outside the house like many others, but instead of being made square in the customary way, the lines are expanded to provide these diagonal walls in which small windows are set. The hearth is but a little wider than the fireplace opening, but there is a wide stretch of tiling on

each side. This arrangement gives a broad shelf, stained the same color as the other woodwork, while above it is a painted panel occupying all the space between the windows. The dainty curtains at the little windows soften the light which falls on the painting and the mantel is purposely kept free of useless incumbrances, which would rob the charmingly designed fireplace of its quiet dignity. Whatever the rest of the house may be like, this corner is certainly a success.

Illustration No. 3 is similar in character, although showing a fireplace quite different in design. The house is entirely modern, yet there is a pleasant if subtle suggestion of old fashioned comfort in this fireplace, recessed as, it is, with an ample opening and a heavy cross beam at the top. The individual note here is pronounced. I can almost fancy a good wife dreaming it out, if she be imaginative enough, or at least impressing the architect with the fact that she must have a fireplace with the old-time charm, leaving him to puzzle out the problem of making it fit into a strictly up-to-date architectural scheme. The design is simplicity itself. The bricks are red, pointed off in white mortar and laid with a running bond in the ordinary manner. Yet the inglenook suggestion, the square lines, the mass of brick and the heavy timber give it undeniable character and charm.

People who find themselves in houses with double front doors such as were made use of some years ago need not tolerate them longer if willing to pay fifty or seventy-five dollars for a modern form of construction. The old draught-breeding doors may be removed and a heavy single door substituted. Of course it will not be wide enough to fill the opening, but a panel with windows may be set on each side. This seems most conventional, to be sure, but if the windows are confined to the upper part of the panel, fitted with small panes of glass and the door



Old-Fashioned Comfort in This Recessed Fireplace.

chosen with care, an excellent effect may be obtained, and that with stock material. All depends upon whether one has this capacity for doing that which is not commonplace.

When the average person tries to think up some way of giving character to a new house, he or she usually settles upon a built-in window seat and some other form of built-in furniture, probably a china closet or a bookcase. As a result these things are almost as conventional as any other feature, but even so, it is possible to find the individual note if one has patience and imagination enough. It has been done, as witness the china closet in Illustration No. 4. This closet is small, you see, and simple. As a matter of fact, it faces into the dining room of a modest bungalow. The whole scheme is interesting, for the china closet is nicely balanced on the opposite side of the entrance hall by a built-in bookcase of the same proportions and design. Together, they give

a little desirable seclusion to the stairway, and help to define the lines of the hall.

There are several points about this unconventional plan worth calling attention to. First, space is saved which otherwise door is excellent, full better in this connection, probably, than leaded glass. The frosted electric light globe at the side of the post is not to be overlooked. Presumably there is a similar fixture beside the bookcase to illumine the titles of the



RECESSED STAIR AND BUILT-IN CHINA CLOSET IN OAK PARK BUNGALOW.

would be wasted. Second, a feeling of privacy is secured, more apparent than real, to be sure, but still worth working for. Third, the use of carefully selected and skillfully treated wood in this conspicuous way adds much to the charm of the rooms. Cypress, stained, could be used effectively in this manner. The arrangement of the glass in the china closet

books when one wishes to make a selection after dark. Thoughtful little touches like these help much in emphasizing the individual note in the house. This arrangement is so simple and so practical that doubtless it will be widely copied, especially in houses of distinctly modern construction where inside doors are not greatly in evidence.



BUILT-IN BOOKCASE WHICH IS INTEGRAL PART OF SETTING.

It is quite possible to overdo the matter of built-in furniture, though. When there is too much of it, one wearies of its monotony. It is pleasant to move one's furniture about, once in a while, to look at it from a new angle and even sometimes to substitute new pieces for old, but with built-in furniture, however artistic, once in place it is there to stay. In apartment houses and flats this is all well enough. Families may come and go like birds of passage, as they often do, but the furniture stays on forever, or at least as long as the house stands. The landlord is pleased because less damage is done by the movers, and the tenants are satisfied because their loads are smaller and the

bills accordingly less. In houses lived in by their owners, who expect to spend many years there, the situation is different, so that one does well to pause when tempted to yield very far to the built-in fad.

In our fifth and final illustration, however, we have a type of built-in bookcase which expresses a delightful note of individuality and is fully justified by its position, like the china closet in No. 4. It is not obtrusive and does not intrude upon the floor space. As a matter of fact, is an integral part of a bit of splendid architectural planning, the stained glass windows, the curious electric globes, the brick columns and all the rest marking

the finished work of an architect whose individuality has been impressed upon many houses in the middle west.

This bookcase, quite apart from its setting, is beautiful in its severity. The perfectly plain doors and straight lines are a rebuke to those who find beauty only in heavy ornamentation and tortured embellishments. A member of the New York art commission likes to talk in homely language about the warts and other excrescences on the legs of tables and chairs such as are found in many homes, seeking to impress people with the fact that beauty is most to be admired when unadorned. In the case illustrated, the doors are really an architectural feature. To have made them of glass would have destroyed the individual note as effectually as to have glued on a piece of machine carving. In most instances, and this fact may well be remembered, it is better not to have doors of any kind on a book case, unless for decorative effect. Books deteriorate less rapidly when exposed to the air than when shut up. So don't put on doors to protect the books.

There are many other ways in which it is possible to strike an individual note. Most often it is attempted in the wall dec-

orations, but all too frequently the result is a flat failure. It is a difficult matter to secure original effects which are not bizarre or else too elaborate and complex to express the best of taste. Many people waste money and thought in a puerile effort to obtain unusual schemes of wall treatment, yet occasionally someone finds the way to success by such a simple process as using stock doors for paneling, setting them side by side, or employing decorative canvas and marking it off with cypress strips. It is quite possible to express individuality with simple means and at small expense. Many costly houses are as characterless as a paving stone.

Even the floor sometimes offers unexpected opportunities. It has been discovered, for example, that stenciling can be employed on a floor border almost as satisfactorily as on a wall and home-makers have secured striking and quite unconventional effects in this way. Stencils ready for use may be purchased or they may be ordered or made to fit in with a special scheme of decoration. However it may be obtained, the individual note is well worth striving for, in modest homes as well as in those which are more pretentious.

An English Cottage

By Kate Randall



HE pretty English cottage illustrated impels us to wonder why we have ever departed from the English models. The lines

are so good and there is such an air of comfort and stability. This house is a new one, but it fits into its beautiful setting as though born and raised with the oaks.

The entrance is at the side and the whole front is one long living room, with windows to the north, east and west. Back of the entrance hall, a door at the

foot of the main stairway leads into a sun parlor or breakfast room. There are also doors from the living room and dining room into this little room, which is sunny and attractive. The east side consists entirely of glass, but against the west wall there is built a most artistic small fountain, with a basin below. The balance of the wall space, not taken up with doors, is covered with green lattice, on which vines are trained and there are small window boxes for ferns and other greenery.



SUCH AN AIR OF COMFORT AND STABILITY.



BORN AND RAISED WITH THE BEAUTIFUL OAKS.

The furniture is reed. The oblong reed table is first covered with flowered chintz, and then with heavy plate glass, the same chintz appearing in cushions for the chairs. The color scheme of the whole lower floor is a soft gray, with dark fumed oak woodwork; the draperies of the different rooms are sunfast fabrics in different colors. The walls of the living

The artist who designed the fountain in the breakfast room also designed the fine fireplace in the living room. The shelf itself is of heavy oak, but framing the opening below and on the hearth are tiles that exactly reproduce uneven blocks of old English sandstone. And the English touch is also continued in two highbacked winged chairs, with fine old



REAR VIEW OF THE ENGLISH COTTAGE.

room, dining room and den are papered with plain gray, and these rooms have heavy mouldings of fumed oak, some eight inches wide, set close to the ceiling, except for this finish the side walls are unbroken. The hall paper is an indistinct foliage of the soft gray and white. The floors of the porches, hall and breakfast room are red tile, about ten inches square. All the other floors dark oak.

The dining room is also an east room. The whole east side is given up to windows and glass doors into the garden. The furniture, too, is old oak, with Dutch blue draperies.

chintz. Long glass doors on all sides most skillfully frame the beautiful views of the distant mountains and the oak covered hills, and make them a very charming part in the decoration of this beautiful room.

On the second floor the woodwork is white enamel, but the soft gray walls still prevail, yet the bed rooms are very bright and cheerful in gay flowered chintz. The sloping roof, with its many angles, make it possible to have closets, drawers and cupboards without end, and there are many other conveniences in this very charming English cottage.

Interesting Glimpses of Napoleon's Home at Elba

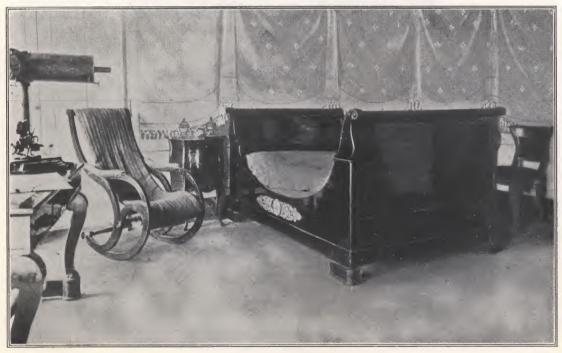
AN MARTINO, the dwelling of Napoleon I on the Island of Elba, was recently sold and, it is believed will be remodeled to suit

the purchaser. Thus will pass one of the most interesting relics of Napoleon's career, for the house contained many pieces of furniture used by the exiled emperor during his residence, as well as many of the original frescoes and decorations. The house, which was not large, was used by Napoleon as a private residence; a more pretentious building, known as the Palace of the Mulini, being reserved for formal functions, of which, despite his exile, Napoleon held quite a number. The palace retains little of its former character at this time and is of little interest to the relic-hunter.

The Villa of San Martino, however, has always been visited by tourists, although strangely enough, very few French people were attracted to it. On the ground floor, in addition to rooms used as dining room, kitchen and pantries, there was Napoleon's bathroom, as shown in the accompanying picture. The bath tub was of stone, having above it a basrelief of "Truth," looking into a hand glass and bearing the inscription, "Qui odit veritatem, odit lucem." (Who hates truth hates the light.)

The floor was mosaic of simple pattern and the walls were ornamented with frescoes of the period, representing spring time subjects.

The floor above contained what was known as the room of the pyramids. The



NAPOLEON'S BEDROOM.

walls of this were covered with Egyptian subjects and paintings recalling incidents of the Egyptian expedition. There were figured columns on one of which was inscribed "Ubicumque felix Napoleon" (Napoleon is everywhere happy).

Next to this room was the salon, a fairly large apartment. There was some alterations in the fittings of this room since Napoleon's residence, but the general treatment remained typical of the late Em-

ed into squares on which were alternate bees and crosses of the Legion of Honor. The walls of this room also were draped with brocade. The furniture, which was said to be authentic, consisted merely of a mahogany bed with very little ornamentation, a rocking chair, which is very interesting in itself, inasmuch as it has been held by many persons that this article of furniture was distinctively American; two mahogany chairs upholstered in



NAPOLEON'S BATHROOM AT SAN MARTINO.—NOTE THE OLD FRESCOES.

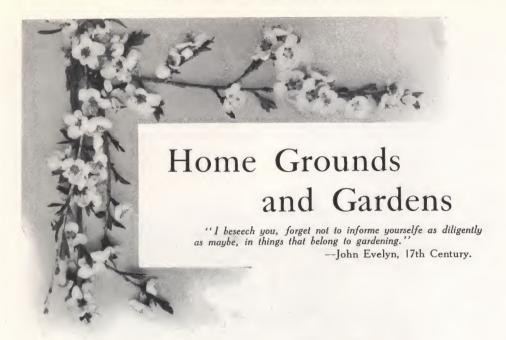
pire. The walls were hung with brocade depending from spear-points ornamented with the Empire wreath. The fireplace and mantel were good examples of the period. The ceiling of this room was draped in the center, the border being decorated with medallions, on one of which, the large one shown over the fireplace, were painted two doves entwined with a ribbon, typifying Napoleon and Marie Louise.

On the right of the salon, and occupying a corner of the house, was Napoleon's own room. The ceiling of this was divid-

green velvet, and a writing table with simple brass ornaments. There was also a somnoe with a set of porcelain beside the bed and the writing table mounted a telescope which commanded the approach to the villa and through which Napoleon was wont to examine closely all visitors.

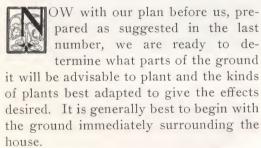
In the opposite angle from Napoleon's room was the apartment used by his mother. The most interesting object in this room was an enormous four-poster bed with heavy green curtains and mounting two gilded pelicans at the top of each post.

NOTE:-We are indebted to the "Wall Paper News" for the illustrations and much of the information used in this article.



Planting of the Grounds

By Harry Franklin Baker Landscape Architect



This suggests trees and vines if there are none already planted. When locating the trees, keep in mind the size to which they will grow. Do not set them too near the house or in such a position that they will cut off any desirable view as they grow to maturity. Remember that a tree is to remain where it is planted for many years and if it is expected to grow to its full beauty and size, it must be supplied with an abundance of good rich soil to a depth of several feet. Very likely it will be desirable to locate some of the trees

where they will provide shade for the house or some part of the garden—others to provide a setting or frame for the house. This is generally best accomplished by keeping them a little to each side of the house. Do not plant them in the center of the lawn. If the lot is small, it is better to keep them near the boundaries of the property.

Trees for this purpose should be selected for their character of growth, their foliage and longevity such as oaks, elms, lindens and hard maples. Do not select trees because of their peculiar form and showy blossoms but more for their grace and stateliness and the quiet refinement of their foliage.

Next, a background must be provided, as no house appears at its best when outlined against the sky alone or some neighboring barns or other buildings. From this it is evident that very often a part of the background at least is to serve also as a screen. Some of the trees used for this purpose may very properly consist of kinds that make a rapid growth, although they are not so long lived. Such trees will give a quick result and may be removed after a few years as the trees of slower growth attain the required size. In this method the trees should be set quite close together and after they be-

grow well upon either side of the window. The vine at the right hand corner is an ampelopsis Engelmanni. This vine is very hardy even in Canada and will cling to most kinds of brick and stone without support. Eventually it will reach to the cornice of the house. In the autumn it turns a beautiful crimson. Very often it is used to climb to the top of an outside chimney.



PLANTINGS OF SPIREA AND BARBERRIES, WITH LILACS.

come too crowded the less desirable ones may be removed.

Conifers make a fine screen the entire year through and also, by their color, add interest and cheer to the winter landscape. The poplars and catalpas are rapid-growing trees, also the silver maple.

The main purpose for planting about the house is to tie the building to the grounds and to make the transition from the lawn to the perpendicular walls of the building less abrupt.

The planting in front of the house here shown, consists largely of spiraeas and barberries. Between the windows are lilacs which are just beginning to show their height. In time, these lilacs will

In places where it is not desired to have a vine very high, the ampelopsis Veitchi will do very nicely. Although not very hardy in the northern states, the roots seldom die out, and as the new growth is very attractive, it is well worth using.

In the above picture, this vine will be seen growing on the wall near the steps. In looking at this picture, can you not realize how much more attractive the house will be when provided with a background of foliage? Trees for this purpose have already been set at the rear of the property, but have not yet had time to make the necessary growth.

Another excellent vine is the clematis paniculata, which is shown by the win-

dow at the left. In the following picture, the same variety of vine is shown in full blossom. Notice the manner of support furnished this vine. The clematis must be supported. In the north, it generally dies to the ground with cold weather, but after once established, it will make even a stronger growth than shown here. Another most desirable class of vines are the lonicera or honeysuckle. The foliage is especially good and several varieties have fragrant blossoms.

Of hardly less importance than the vines mentioned above are the celastrus or bitter-sweet and wild grape vine. These are very useful for covering pergolas or trellises. The aristolochia is a useful vine in locations somewhat shady. It requires a support and a year or two to become established. The foliage is rather coarse and large. When in blossom, the climbing roses are most charming, but without the blossoms, the effect of the foliage is not nearly so good. They are not always successful on a south brick wall, as the heat is apt to burn the foliage. Where hardy, the trumpet vines and wistarias are extremely beautiful. For a quick effect, the cobea scandens, an annual vine, will be found very satisfactory. It has good foliage, attractive blossoms and makes a remarkably rapid growth. The large flowered clematis gives very



Clematis Paniculata.

beautiful effects when in blossom, but as a vine, the foliage is not especially good.

There are many other desirable vines in addition to the ones mentioned here, but the above are some of the best and most reliable.

In our next number we will consider the use of flowers and shrubs about the home.

Time to Prune Shrubs

What is the proper time to prune rambler roses, wistaria, hydrangeas and lilac bushes? How are they pruned, or what is the distance to cut them from the main stem?—A. G. H., New Jersey.

In pruning rambler roses cut off in the spring, before the buds open, from one-fifth to one-third of the previous year's growth; also, in established plants, any of the old, flowering wood which is en-

feebled. Do not hesitate, even if a part of the trellis is laid bare. It is only by this method that these plants can be kept vigorous. In summer take out most of the old wood after it has finished flowering and train new growths as desired, pinching out weak and objectionable shoots. Hydrangea paniculata and hortensis, and also most of the other species, should be pruned in the fall or spring.

How One Home-Builder Did It

The Building Experience of F. B. Miller

[N. B.—We would be glad to hear from others.—Ed.]



FINISHED my house, the photograph of which I sent you, in a rough pebbledash cement, the color being a gray with a

greenish cast to it. I got this color by using a light gray cement mixed with crushed limestone rock, screened to size, common river sand, and pure white sand. and the ceiling beamed. The woodwork is finished in a brown weathered stain, the ceiling tinted in buff and the side walls in a rich brown.

The music room is finished in a weathered oak, a shade darker than the hall. The side walls are papered with a dark blue cartridge paper, each wall being out-



FRONT PORCH, SHOWING BROAD AND SPACIOUS CEMENT PORCH.

The different proportions of these materials were mixed together until the desired shade was procured. My plasterer mixed up several batches and the same were dried in a gas oven. The trimming of the house is a rich olive green, and harmonizes with the cement in a very pleasing way.

On the inside of the house, the hall, living room, music room, and dining room are finished in quartered oak, the hall being wainscoted on the sides five feet high, lined in a panel of conventional design, the colors being of blue and old rose. These colors are very dull in tint. The furniture in the room is mahogany upholstered in blue monk's cloth.

The woodwork in the living room is given an Old English brown finish. The side walls are papered with a plain brown cartridge paper with a twenty-four inch landscape frieze. This landscape frieze is in tones of brown and harmonizes with the rest of the room very nicely.

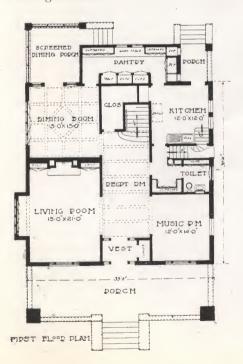


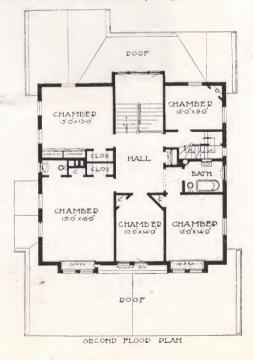
SIDE AND REAR VIEW OF HOUSE SHOWING TERRACES.

The dining room woodwork is finished in Old English stain, being wainscoted and the ceiling beamed. It is lighted by side lights and a rich stained-glass dome in the center. All the metal work of the light fixtures is in verde antique. The fixtures in the hall are also in this finish. The side walls are finished in leather in a dull gold effect.

The woodwork in the second floor bedrooms and bathrooms is finished in white enamel. The first story floors are quartered oak and the second story floors are white maple.

We consider our floor plan a gem; we wanted abundant light in the living room and we got it. The longer we live in the house the more satisfactory it proves.





Timely Talk on Curtains

By Eleanor Allison Cummins



O question comes to the decorator more frequently and more earnestly than, "How shall I cur-

tain my new house?"

As to Materials

In the first place, although the shops are still full of them, it is pleasant to chronicle the passing of the lace curwhich one may happen to have is as a bed spread, using the pattern of the sides and bottom as a border to a center of heavy net, covering the joining with a line of lace braid of a harmonizing sort, and laying the whole over a lining of yellow or rose satine. A study of the curtains and bed spreads of filet, cluny and



DOTTED NET AND SIDE DRAPERIES OF JAPANESE CREPE.

tain. It survives in many houses, but it is no longer bought by people of taste, except for use in a formal reception room furnished in French style, to which it seems rather necessary. The single Bonne Femme curtain of heavy net, more or less elaborately ornamented with braid or other applied ornament, is desirable in the city house whose windows are close to the street, although a width of heavily patterned net, like the filets which copy the old Italian peasant work, is preferable. Perhaps the best use to make of a pair of handsome lace curtains,

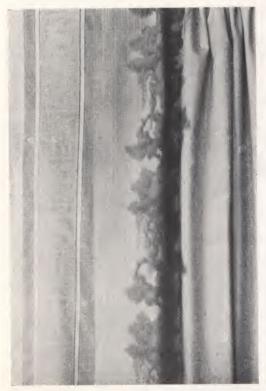
embroidered batiste, which are shown in smart shops, will give one a very good idea of what may be done in the way of putting together different sorts of lace. With some sorts of curtains a fine batiste center, either cream or white, is better than net. These shops also show separate curtains of very fine, sheer batiste or voile with dainty borders and insets of lace, which meet the tastes of those who prefer a regularly made curtain to materials by the yard. These vary in price from \$7.00 or \$8.00 to \$20.00 the pair.

The Use of the Filet Net

Filet net in squares, with quaint heraldic designs, is a very good material to use in a room where both windows and doors must be curtained. It is not especially cheap, costing seventy-five cents a yard, forty-five inches wide, but it is durable and very effective. As it is rather heavy, curtains need not be as full as those of thinner materials. For a door it can be stretched on plainly, its edges covered with a cotton gimp. It is so decorative in itself that a second set of curtains seems superfluous. When they are used it is well to choose a plain material, like rep or poplin, or some of the sun-fast materials for the second set of curtains, as two patterns are apt to kill each other.

The Use of Cretonnes

A charming use for one of these effective cretonnes with a design of brilliant



Curtain of Bordered Batiste, 85 Cents the Yard; Side Drapery of Natural Linen, with Border of J ilacs in Green and Purple.



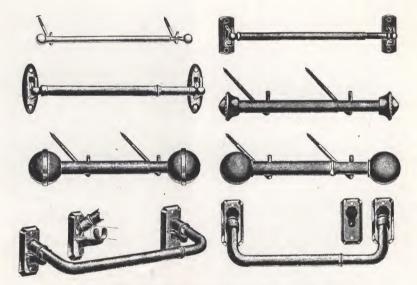
Curtain of Fine Batiste, with Insert of Filet Lace; Side Draperies of Golden Brown Figured Sun-Fast.

colors on the black background is as a cover for a single piece of furniture in a room, either a couch or a large chair. Most of these cretonnes have a good deal of pink in them, and they fit in admirably, when the general scheme of the room is old rose in some of its shades. The same cretonne is then used for curtains, thus giving the needed touch of black, which does so much for the colorless or negative room.

In the house of a well known decorator this material is used for curtains with a rose and green rug and furniture with gilt frames, and coverings of green and white brocade. The vogue of these black cretonnes is another example of the education of the public taste to a gradual appreciation of a novelty.

Another bedroom has a fourposted bedstead with hangings of white dimity repeated at the windows and dressing table, with a wall paper of great bunches of pale tinted roses tied with green ribbons. Another old fashioned room has a striped paper in pale grey, with a nosegay-and-blue ribbon border outlining each of the four walls inside a two-inch band of plain grey and white madras curtains.

After the materials are decided upon, an intricate and puzzling problem to many is at the sill, just touching it, and be hung inside the frame of the window on a brass rod run in the upper hem. If there is only one set of curtains, this rod should run in a welt, leaving a narrow ruffle above it, and the sockets for the rod should be set so that the edge of the ruffle just touches the window frame at the top. Right here appears the advantage of making your curtains yourself. When you buy a ready-made curtain you



SHOWING RODS AND BRACKETS USED IN HANGING CURTAINS.

The Hanging of Curtains

The great variety of windows to be found in modern houses taxes the skill of the woman who would save her money and make and hang her own curtains. Shall curtains stop at the sill, or be carried to the floor? Shall shades match the exterior or interior of the house? Shall I have two sets of thin curtains? How shall I hang the curtains of a set of four casement windows side by side? What shall I do with French doors, and how curtain inward opening casement windows? Such are some of the questions which people ask.

The length of the curtain depends upon the style of the window, but the general rule is that the thin curtain shall stop pay for a good many inches of extra material on each curtain, unless your windows happen to be of absolutely standard length.

Curtaining the Casement Window

This is simple enough if the windows open out. You treat them just like any other windows. If they open in, you must fit your curtains to the frame of each division. If only the lower half of the windows are movable, you will have to hang your curtains in two sections, and when the windows are open, the effect will not be exactly happy. I think that in such cases it is best to dispense with thin curtains altogether, and to hang side curtains, and a balance of some thick material outside the frame

of the window, depending on awnings to shut out the summer's sun.

These side curtains and valance are a great improvement to any casement window, especially to those in groups of three or four. The side curtains should be at the ends only of a group, the valance going across the entire window in a single piece, and if the window is recessed, both should be hung inside the frame on a separate set of rods, unless the proportions of the window, as is often the case, are helped by having them hung on the frame.

The Treatment of French Doors

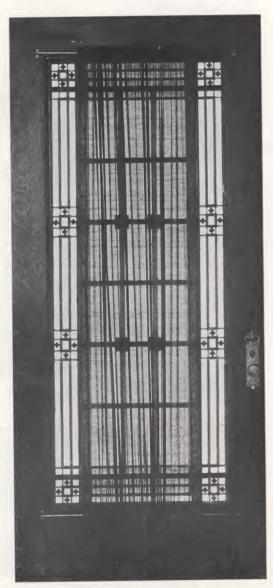
A French door in most cases requires the same treatment as the windows of the room, as it is practically a window itself, when it opens out of doors. That is, the same material should be used. But it is usual to have the curtains of a door shirred top and bottom on rods. Side curtains and a valance may be used with a door, but are not at all necessary. If they are used they must be attached to the outside of the door frame, and the curtains of the windows must be hung in the same way.

When French doors are leaded in copper with design in some of the refined and beautiful work now in use, either partial screening or none at all is necessary. The illustration shows a fine treatment of such a door in the hall of a handsome house. The material used is a sun fast grenadine in an olive tone, and is drawn into the center of each door so as to show the beautiful decoration and give more light.

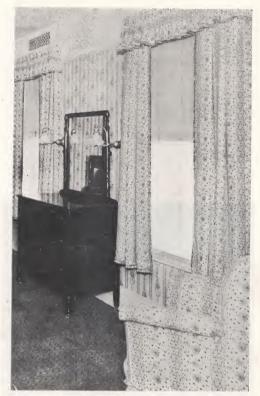
For a room combining copper color and green one of the leaded windows made from the bottoms of green glass bottles is immensely effective. The obvious thing with such a window is the casement opening and curtains are rather out of place, although if the exposure is a sunny one a sill length hanging of plain raw silk is not objectionable.

But too much emphasis cannot be laid on the fact that with a rather dark, although bright, color scheme the conventional white thin curtain is out of place. There are exceptions to this rule, where it is essential to privacy, but a bottlegreen leaded window does not offer such an exception.

Beautiful materials when hung in a room where they are placed next a window so that they hang in a deep shadow,



Treatment of French Door in a Hall.



Charming Hanging of Pink and Grey Chintz in Bedroom.

lose all their quality. Likewise, colors in thin materials which are examined with the light shining upon them are quite different when hung as curtains with the light shining through them.

The Curtains for a Bay Window

A great many people are puzzled to know just how to curtain a bay window, especially the rather old-fashioned sort, almost circular and with five openings. The old way was to fit the separate windows with shades and have long curtains tied back at either side at the opening into the body of the room, and the tradition persists. The better way is to treat the bay window as an integral part of the room, its windows just as you would ordinary single windows.

If the windows are high enough to admit of it, some sort of a valance adds greatly to the effect of thin curtains next the pane. The writer has lately seen a window of this sort with plain white scrim curtains tied back a little above the sill of the window and stopping at it, straight side curtains over them well pushed back, and a gathered valance carried across the top of all five windows. The room was a dining room with warm tan colored walls, brown woodwork and furniture and much blue china, while the over curtains were blue and white Japanese cotton crepe. The monotony of the paneling under so many windows was relieved by a low green wicker table, standing a little to one side of the bay, and holding an enormous fern.

If the bay window is a shallow one it looks well with deep cushioned seat carried around the curve, and the spaces below the seats can be utilized for book shelves. These cushions should be covered to match the side curtains, in color if not in material.



Short Draperies at the High Windows.

"Elm Shelter," An Architect's Country Home

By Chas. S. Sedgwick

OME! Webster's terse definition of home is "one's dwelling place" and strictly speaking that is correct. There are as many differ-

ent kinds of homes as there are different kinds of people; as a general rule the has surrounded it with much that is very beautiful to a lover of nature.

Only a small piece of ground with frontage 140 feet, rough and uneven in the lay of it, but many trees in their own natural setting, and, best of all, one grand



AN ARCHITECT'S COUNTRY HOME.

home reflects the people who occupy it. Show us the home and we immediately form an opinion of those who live within, but it does not follow that the grand and palatial residence, beautiful to look upon, is the reflection of grand and good characters within, and it is often quite the reverse. The small "tiny" home, the subject of this article, is located at Birch Bluff, Lake Minnetonka; it has very little from an architectural standpoint, but nature

old elm, over three feet in diameter and towering over one hundred feet in height, standing a few feet away on the west side and overhanging the cottage and suggesting the appropriate name of "Elm Shelter."

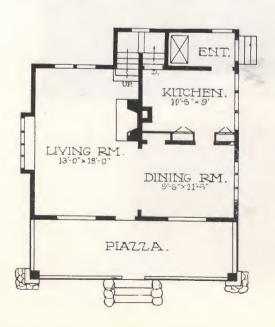
The idea of the owner was to get the very most out of a little—a small expenditure of money and large realization of comfort and great restfulness. The cottage has a low spreading roof

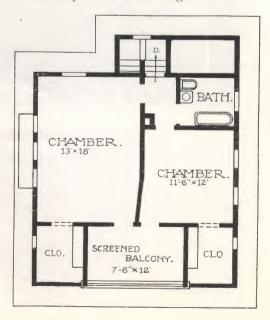


"ELM SHELTER"-Multum in Parvo.

with red stained shingles, and casings and cornices painted white, with rough grey cement dash on the outside walls that is equally good to keep out heat and cold and just the surface for the beautiful woodbine that grows luxuriantly and in two years' time has nearly covered one end of the cottage. The piazza across the front and the sleeping porch over are well protected from storm by the

wide projected eaves and make one of the most attractive features of the home. The living-room and dining-room open onto the piazza with French windows, and the open brick fireplace with a cheerful wood fire adds greatly to the home comfort on cold days and evenings. With two bedrooms on the second floor and sleeping-porch, six adults have often been comfortably housed over night.





The small dining-room, convenient cupboards and kitchen arrangement make the housework comparatively easy. A good hot-air furnace furnishes plenty of warm air and ventilation. The owner is a firm believer in having the home grounds inclosed, and to accomplish this a fine red dogwood hedge has been grown across the entire front, and being properly set out and cared for has grown finely and is now three feet in width and trimmed three feet high, with two gate openings and winding gravel walks, adding greatly to the retirement and privacy of the place. There are bunches of elm trees, ironwood and basswood affording ample shade and background to the "tiny" cottage nestled among them. A

good tennis-court and lawn for croquet offer attractions to all that enjoy outdoor sports; a garden across the rear offers ample opportunity for gratifying one's ambition for supplying the table in season with things good to eat and fresh. Several places allotted for flowers and well filled complete an ideal and unpretentious home where, after busy hours of office work and perplexing study, one can enjoy an evening of rest and smoke.

The outlook from the front is on the main upper lake (Minnetonka) road and appropriately named "Paradise Avenue," and looking across and down a wide gravel path, at an elevation of twenty feet, opens a broad and expansive view of beautiful Minnetonka.

Rustic Adornment for Private Grounds

By Monroe Woolly

solid comfort and enjoyment as the summer house in the gardens of the well-to-do. In them many a sultry afternoon and evening may be pleasantly spent, lounging in rustic chairs or reclining in hammocks swung from the supports. And summer houses should not be confined solely to the well-to-do, for their cost, if ingenuity is used, need not be prohibitive. Of course in summer houses one can spend as much as bank accounts will stand, even into the hundreds or thousands. On the other hand, there is something still better than the happy medium for ordinary folk. Material for a man's-size summer house may be had in most communities for ten dollars. The design should be rustic, in which case a small boy is equal to the task of going into the woods and bringing out the raw material. If the builder fells and trans-

OTHING perhaps is so full of

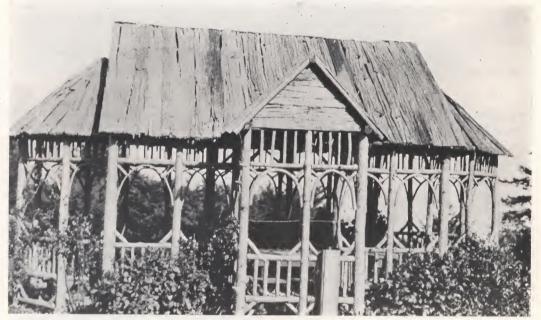


A Bridge for Your Own Mississippi.

ports his own timber, the house will be that much cheaper. In such event, there should be no cost for material at all, except possibly a stumpage charge.

In building a summer house there is another advantage accruing to the person of small means. It is in the labor. The rougher the work in rustic construction the more artistic the effect. Such work is truly the field of the hatchet-and-saw man. Therefore, if you can use these common implements the cost of your

effect, and for that reason are not appropriate. In working in the fancy work small pieces of timber, not more than from one to two inches in diameter, should be used. These should be green, unseasoned branches taken from the timber used for supports, so that they will bend readily without breaking or splitting. All sorts of twigs, even those one-quarter of an inch in diameter, may be used in elaborating novel decorative effects.



A SUMMER HOUSE FOR LESS THAN TEN DOLLARS, IF YOU ARE A HATCHET-AND-SAW MAN,

summer house should foot up surprisingly low. Another advantage in this sort of construction is the extremely small amount of real work involved. Summer houses are skeleton houses only. That is, they have no walls and no floor. Briefly, the specifications call for main supports, some fancy wicker-work interlaced, and a roof. Even the roof need not be of expensive material or waterproof. Summer houses are not for wet weather. Certain kinds of bark, in fact, most any bark capable of being flattened out, will suffice for a roof. Milled boards spoil the rustic

From a dozen small trees, say those having trunks of from six to seven inches, a large summer house may be built. As the trunk and branches are used, nothing goes to waste. From six trees of the kind, which may easily be hauled in an express wagon, a summer house large enough for a small family may be made. The boy or young man that is handy with tools should find profitable occupation during his spare time, or during vacation, in building summer houses for those who have not the time or the inclination to build their own.



MUSIC PAVILION OF THE UNIVERSITY OF WASHINGTON, SEATTLE.

Homes that have small streams running through the lawns may be made very attractive by building small rustic bridges across the little streams, the smaller the more attractive. Where running water is wanted for the poultry yard in the rear of the home a little project in canal-digging greatly adds to the beauty of the front gardens. A ditch a foot wide, or even less, and six inches deep, winding gracefully about the flower beds to keep them moist, and emptying into a basin in the poultry yard for the ducks will quickly suggest to the artistic mind the places where rustic bridges, however tiny, are advantageous to the general beauty of the grounds.

The Music Pavilion

All the larger schools and colleges of the country are going in for music pavilions. Music is claiming many lovers throughout the realm of rag-time, and it may not be long before we begin turning out masters that will make the old professors and composers of Europe rather envious. The University of Washington has devoted a large appropriation to the construction of a technically perfect pavilion for musical events. The building is located on a charming spot. A large forest stands at the rear, so that the birds and the squirrels probably think bedlam has broken loose when the conductor of the symphony raises his baton to lash the air.



Designs for the Home-Builder

CONTRIBUTING ARCHITECTS

Design No.

B 425 ROBT. W. MAUST, East Orange, N. J.

B 426 CHAS, S. SEDGWICK, Minneapolis, Minn.

B 427 R. C. POWELL, Dayton, Ohio

Design No.

B 428 A. C. CLAUSEN, Minneapolis, Minn.

B 429 BUNGALOWCRAFT CO., Los Angeles, Cal.

B 430 KEITH'S ARCHITECTURAL SERVICE, Minneapolis

B 431 A. M. WORTHINGTON, Albany, N. Y.

Design B 425.



HIS design, which received honorable mention in the brickbuilders' competition last year, has a number of interesting features.

Though a moderate cost house, the plan shows quite an imposing entrance hall with a vestibule arrangement which affords a coat closet in the hall, and a convenient closet in the living room. The hall is lighted by a hanging oriel window on the stair landing which makes a pretty feature of the exterior, with its diamond lattice panes. The entrance steps with their iron railing and sheltering hood, the excellent grouping of the windows with their green shutters, together with the disposition of the flower boxes and the arches of the porch, quite sufficiently relieve the plainness of the square outline. The construction is of Natco Hollow Tile, coated with cement, rough cast, and a shingle roof. At small additional cost roofing of slate or asbestos shingles could be substituted, and greatly add to the value and appearance. The house is planned to cost \$6,000, and this estimate includes a full basement with hot water heat and the usual plumbing. The inside trim is hardwood on first floor, with hardwood floors throughout. Height of first story, 9 ft.. Second story, 8 ft.

Design B 426.

This convenient seven-room bungalow is 38 ft. in width and 48 ft. in depth, exclusive of the piazzas, two in number, one on the main front, and one on the right

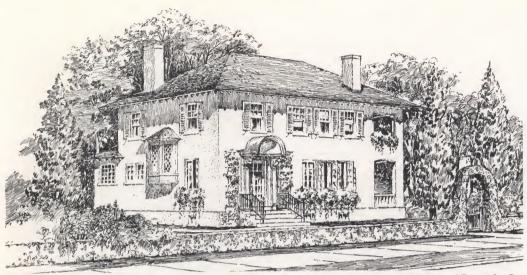
hand side, both opening from the house with wide French windows. These piazzas are wide, and built with cement floors and boulder stone walls; the corner piers of the front are also built of boulder stone. The outside of the bungalow is shingled with cedar shingles, stained brown, and all of the trim, cornice, casings, etc., may be stained brown.

There are seven rooms on the main floor, with a central hall and vestibule entrance. At the right from the vestibule on the main corner is the living room, 13'x19', and opening from this with columned arch is the dining room. The kitchen is at the rear of the dining room, large in size, and has convenient pantry cupboards, and a rear stair leading to the basement and to the attic story. At the rear of the kitchen is a liberal-sized shed and a porch. Bath room opens out of the rear hall, a small sewing room and a bed room or den; main bed room in front is 14'x14'. In this plan it is designed to finish three rooms on the second floor, full 8 ft. in height, the first story rooms being 8' 6" in height.

The finish of the first floor throughout is in mission oak, with oak floors. The second story rooms are finished in fir and stained, with fir floors. The cost is estimated at \$3,500, exclusive of heating and plumbing.

Design B 427.

This design gives liberal space and all the comforts for a small amount of money. It dispenses with all frills, and aims to



Robt. W. Maust, Architect.

DESIGN B 425

Courtesy of the National Fireproofing Co.

Attractive Design in Rough Cast

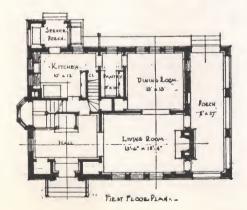
secure the most actual value for the least expenditure. There are two full stories and a well lighted attic; the first story being 9' 2" in height, the second 8 ft. The construction is frame, sawn siding being used on the first story and shingles above, with shingle roof and brick foundation and chimneys. Deeply projecting eaves and a generous porch relieve the plainness of the exterior.

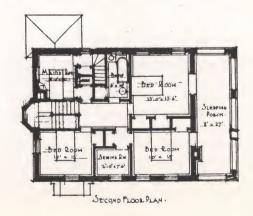
This house was built for about \$4,000, and this estimate includes full basement, with laundry and hot water heat and plumbing. The finish of first floor to be

hardwood, with hardwood floors throughout.

Design B 428.

An ambitious dwelling with marked colonial feeling shown in the exterior treatment. A broad terraced porch receives a roof shelter on the left side, with stately two-story pillars over the front entrance, capped by an architrane and projecting cornice which supports a balcony, to which access is gained from the roof dormers which light the attic. A small balcony within the portico opens from French doors in the second story front.





There is also a balcony above the side porch, extending its entire length, so there would be no lack of breathing space for the occupants of this house. The construction is solid brick walls, with wood trim and shingle roof, but slate or asbestos shingles could be substituted with advantage, and be well worth the additional cost, both in appearance and durability. The floor plan shows a very complete arrangement, with servants' rooms in the attic. Only one bath room is shown, but one of the small rooms could be utilized for another. The height of the first story room is 9' 6". Second story, 8' 6".

Design B 429.

This very handsome bungalow is at present under construction in four states at costs which run from \$2,200 in Southern California, to \$3,000 in Michigan, with cellar and hot water heating.

The house can be built on a 50-foot lot, either as shown in this illustration, or reversed, and a very taking feature is the side porch, which opens into the dining room and also into the breakfast room by French windows, or, in a cold climate, by doors.

The exterior is built on pure bungalow lines, with brick porch and chimneys, and the outside walls are shingled. The roof has sufficient pitch to take either shingles or prepared roofing, and although it appears flat, it is in its construction so well braced from bearing partitions that no amount of snow will cause the slightest sag.

The floor plan is so distinct that no explanation is necessary. The rooms are all of convenient size, and the lighting and ventilation are perfect. The plan shows two concealed beds, which may be used or not, according to requirements.

Design B 430.

This design in cement plaster construction presents a simple but dignified exterior, with excellent floor plan, at minimum cost. With outside dimensions only 24'x40' over all. The floor plan shows a spacious center hall, with very large living room and fireplace to the left, library and kitchen on the right, and a unique placement of the dining room back of the hall, with one wall given up entirely to a group of windows, this house having been planned with special reference to a delightful view from these windows.

Above the living room a sleeping room is arranged, opening from a small sitting room or chamber. The bath is located in front, with a large, airy chamber to the right.

The cost estimate is \$4,500, which includes full basement, with hot water heat, plumbing and hardwood finish on first story, with hardwood floors throughout. Height of first story, 9' 2". Second story, 8 ft

Design B 431.

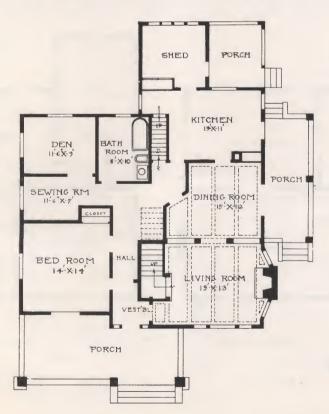
The exterior of this design is cement plaster, relieved by timber paneling in the roof gables and porch. The main entrance is directly on grade from a small tile-paved terrace. A foundation of rubble stone below the cement extends around the house. The left hand corner is cut off, and a bay window extended from the already generous living room, which also opens into an enclosed porch, which is used as a sun parlor. A recessed inglenook in the rear makes the living room occupy the entire depth of the house. The stairs are recessed at the rear of the front hall, and its large vestibule with a convenient arrangement of the service part of the house, and the dining room located in front. Both living and dining room have beamed ceilings. These generous living rooms are provided in a ground space of 30'x33', exclusive of There are good rooms on the porch. third floor, which is well lighted. Hot water heat is included in the cost estimate of \$7,000, with hardwood finish on first floor, birch or pine on second. Height of first story 9' 2". Second story, 8 ft.



Chas. S. Sedgwick, Architect.

DESIGN B 426

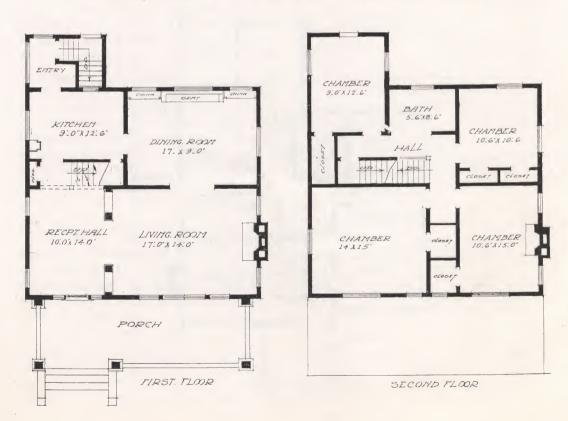
A Seven Room Bungalow





R. C. Powell, Architect.

Plain, But Serviceable and Substantial

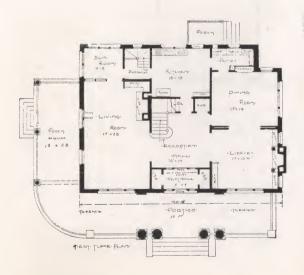




A. C. Clausen, Architect.

DESIGN B 428

A Brick House with Colonial Detail



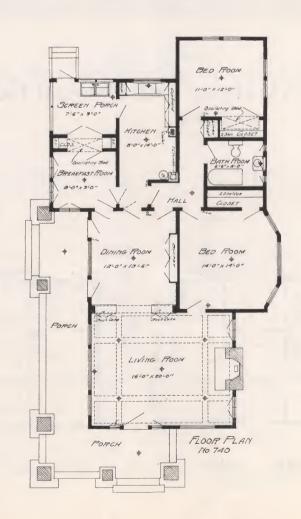




Bungalowcraft Co., Architects.

DESIGN B 429

On Pure Bungalow Lines

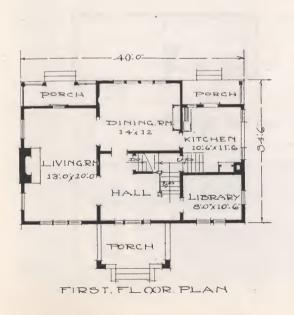


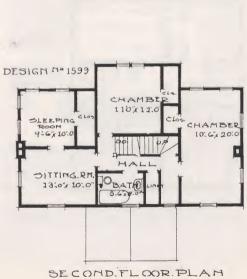


Keith's Architectural Service.

DESIGN B 430

A Simple But Dignified Exterior



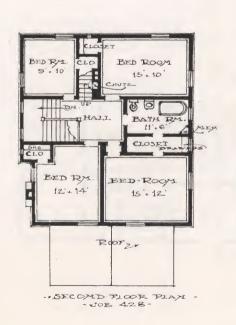


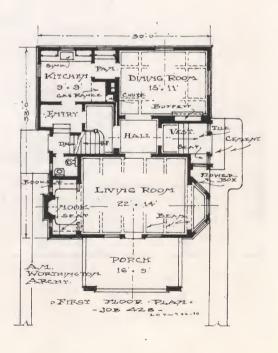


A. M. Worthington, Architect.

DESIGN B 431

Cement Plaster with Timber Paneling









Conducted by ELEANOR ALLISON CUMMINS, Decorator, Brooklyn, N. Y.

The Problem of Golden Oak.



E are still suffering for the craze for golden oak, which preceded the Mission period in our domestic furnishings. Not that golden

oak is of necessity wholly bad. There are tones of it which are rather pleasing than otherwise and it is certainly far less obtrusive than birch with its vivid, almost orange tone. In England decorators use white oak in its natural tone and combine it with white walls and blue china, toning the composition up with the strong reds and blues of an Oriental rug. The difficulty is that golden oak does not combine well with other woods. If most of your furniture is mahogany, you strike a jarring note the minute you introduce, let us say, sectional bookcases in golden oak, while walnut or rosewood would be perfectly inoffensive. If the oak pieces happen to be of that variety which is known as figured oak, the color of molasses taffy and of abnormally high polish, the condition approaches tragedy.

The Counsel of Perfection.

The best thing to do is to change the color of your furniture entirely. In many cases the application of denatured alcohol will remove all traces of varnish. In others a varnish remover will be needed, but the work requires no skill but patience and thoroughness. Once down to the original wood the recoloring with a wood dye or stain is simple. Early English, nut brown, brown Flemish, fumed oak, weathered brown or green are all good tones. Nut brown is the best stain to use if the furniture is to associate with mahogany, unless one chooses silver gray, which is charming for some rooms.

After the pieces are stained they should be given a finish with prepared wax, and rubbing to a polish is a matter of choice. Nothing is so responsive to friction as wood.

The Policy of Segregation.

If you have neither the courage nor the inclination to refinish your oak furniture, the best thing to do is to isolate it, and to decorate the room or rooms which it occupies in harmony with it. Do not, if you can possibly help it use it in a room with white woodwork. If you cannot have woodwork of the general tone of the furniture paint it to harmonize with the paper, or tint of the walls.

Once in a while you hit on a brown wall paper that looks well with oak furniture. It is what might be classed as a tobacco brown, with no hint of yellow. It needs sunshine and positive color to light it up, preferably blue and orange. And for a bedroom you may use an old blue wall very successfully with oak furniture and an upper third of paper with a good deal of pattern combining blues and golden browns and brownish pinks. have also seen a shade of terra cotta that seemed to be just the thing to bring out the best points of oak furniture, but it' was probably rather a fortunate accident than a carefully studied choice.

But for the average room with golden oak furniture the best choice is a wall of low toned green, not gray or yellow, olive. With painted woodwork of a darker olive and all the furnishings of the room in low tones of green and brown the objectionable tone of the wood sinks into insignificance. It is sometimes possible to find in imported tapestry papers carefully blemished tones of russet and brown and green which give a general effect of soft olive and these are even better than the self-toned paper, but finding such things is a happy chance.

The Proper Method of Finishing Woodwork

By Herbert F. Johnson

ELL finished woodwork is just as essential as the decision on the woods used.

The inexpensive woods such as pine, cypress, red-gum, birch, etc., are being used largely for interior woodwork, and if they are well finished, most satisfactory results can be had, as all of them have a very beautiful grain.

Where wood is to be finished in its natural color, let the first coat be Natural Paste Wood Filler No. 10. This will fill the pores and grain of the wood, giving a hard, even surface ready for the finish.

For an inexpensive natural finish for soft wood, apply a coat of Johnson's Under-Lac directly upon the wood, which will give a most excellent finish. Prepared Wax or Flat Wood Finish may be applied over the Under-Lac if desired.

For Golden Oak, Dark Oak, and Antwerp Oak effects, a colored Paste Wood Filler should be used. Then Wax, Under-Lac or Flat Wood Finish.



For colored effects, like Mission, Mahogany, Bog Oak, Fumed, Early English, etc., apply a coat of Johnson's Wood Dye directly upon the wood. Seventeen shades of this dye are manufactured, which allows a large variety of colors. It is easy to apply, will not show laps or streaks,

penetrates deeply, dries quickly and brings out the beauty of the grain without raising it in the slightest.

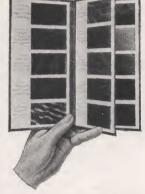
For filled grain colored effects on hardwood, such as Oak, Chestnut and other woods with an open grain a colored filler can be applied over the Dye. If any one will write me for further information on this subject, I will be

glad to give specific directions for getting the best effects.

For a finish over the dye or Paste Wood Filler, some people favor a high gloss finish, while others give preference to the dull finish, which is more beautiful and artistic. An ideal finish is Johnson's Prepared Wax. This should be applied with a cloth and brought to a polish

with a dry cloth or a flat, stiff brush. After the first coat has hardened thoroughly a second coat should be applied and polished in the same manner.

This, however, requires considerable labor, which adds to the cost. Almost the same effect can be had by applying a coat of Johnson's



Flat Wood Finish over the Dye or Filler. Flat Wood Finish should be applied with a brush. It dries absolutely flat in three or four hours and requires no hand rubbing or polishing.

On this page is an illustration of Johnson's \$1.00 portfolio of wood panels which shows

on actual woods, the many beautiful effects obtainable with Johnson's Artistic Wood Finishes. This portfolio with a copy of our 1913 booklet edition K. E. 6, "The Proper Treatment for



Floors, Woodwork and Furniture," will be mailed Free to parties interested in building, if they will write me, care S. C. Johnson & Son, Wood Finishing Authorities, Racine, Wisconsin.

—Adv.

DECORATION AND FURNISHING-Continued

New Things in Wicker.

This spring shows a tendency away from the long popular greens to browns and grays for willow furniture. Of course green will always be immensely popular with some people, and it is full of summery suggestion, especially in its olive tones. The best wicker furniture is absolutely simple in weave, the shapes more often square than curved, and the dimensions of chairs and settles very generous indeed. In fact, and this is a point to be considered always in buying chairs, the seats of many pieces are too deep to be comfortable for a short person.

Much of the willow furniture shown is intended for piazza use, and some pieces have been specially devised for use in narrow spaces, like the long, very narrow tables, with end pockets for papers, books or work. There are triangular tables, which fit into corners, and are sold in twos, to be fitted together to make a square table at need. Beside the always popular muffin stands, "curate's assistants" as the English call them, there are portable work tables supplied with a handle.

By no means cheap, but a most desirable possession, is the hooded chair, in which an old or delicate person is perfectly protected from sun and wind, while enjoying the out-of-doors. Such a chair is often very useful in the house for the unfortunate individual who is susceptible to draughts. Then there are willow beds for the sleeping porch, which can be had in single or double width, and some very good looking willow window and porch boxes, which have the advantage of being much lighter than the wooden ones.

Lamps and Lamp Shades.

Wicker lamps of various weights are fitted for either oil or electricity. They have deep wicker shades which protect the flame efficiently when the lamp is used on a piazza, and some of these shades have openings at regular intervals, to diffuse the light, which are filled in with glass.

A New York decorator has improvised a shade for wicker lamps from one of the wicker bird cages, now so popular, lining it with a soft yellow silk. The effect is extremely good, as well as unusual. Since the importation of these wicker cages, it is possible to buy a bird cage which is not a blot on the landscape. They are adapted to all sorts of birds, with the exception of the parrot, and probably also of his tribe. Polly has been known to chew up his wicker cage, and evidently requires wires for his safety.

Chinese Birdcages.

Some of the antique Chinese birdcages, made of wood and intricately carved, are of great value and eagerly sought by collectors. Other Chinese cages are entirely of metal, with the pagoda shaped top and bands around the sides lacquered in brilliant colors and ornamented with human figures in relief and highly gilded. These are supposed to be appropriate to the popular French schemes of decoration, and are extremely quaint.

The Fad for Things Chinese.

The day of China seems to have come. All the fashionable New York decorators are importing Chinese textiles, silk or cotton, and clever modern copies of old Chinese furniture. Presently all the shops will blossom out with American imitations, in cheap materials and glaring colors. But if temptation in this line assails any of my readers, let them remember that a little Chinese goes a long way, and that a cheap copy of something rare and costly and exotic is bound to be hopeless. Many American families have Chinese porcelain and furniture, which have come down to them from ancestors who were captains in the "China trade." With the present vogue it is quite possible to supplement them by a judicious purchase now and then, and to accumulate enough interesting objects to fill a tiny room, or an alcove off a larger one, but it is in extremely poor taste to associate, let us say, mission furniture with lacquered screens and dragon china. If we must jumble, better jumble with belongings whose inspiration is French. I have seen a pinkroses-and-blue-ribbon cretonne that was admirable accented by a pair of powder blue vases. Chinese lampshades painted with figures and landscapes on thin silk are charming on a gilt lamp and a black and gold lacquered screen looks well in a dining room furnished in old mahogany.

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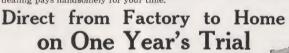


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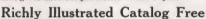
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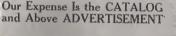
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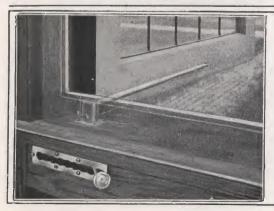
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DECORATION AND FURNISHING-Continued

And the printed Chinese cottons give a delightful touch to a mahogany bedroom. The reason is quite obvious, but no amount of imagination can place any of these Chinese things in the Missions of Southern California, nor in the Early English period which inspired William Morris.

A Wall Treatment for Living or Dining Room.

An interesting and very beautiful treatment for walls may be obtained by the use of a tapestry or foliage wall paper in which the background spaces are small and of approximately the same size. With a sharp stencil or penknife, the paper being placed upon a piece of glass for easy cutting, all the background spaces may be cut away and the paper then put upon a background of Japanese gold paper. This is not by any means an easy or an inexpensive piece of work. Comparatively speaking it is inexpensive, for the effect obtained is extremely rich and makes a very handsome room. The paper need not be very high priced, but the labor of cutting it out and hanging the tracery-like strips will be a fairly large item. The cutting may, of course, be done at home if one has a great deal of patience and time which is not more valuable spent in some other way. A strip of paper cut out at one time may not be too large an undertaking, and a few evenings spent in this way will accomplish without expense a piece of work which if done by a paperhanger would be a very considerable item.

Japanese gold paper comes in very large sheets, at ten cents a sheet. wall should first be papered with these sheets and then the foliage paper hung over it. If there is a moulding or plate rail in the room, the wall paper need be carried only to that, leaving the plain gold paper above it; or a frieze may be made in this way, choosing some plain paper or grass cloth of a harmonizing color to go below the molding. The body wall of the shining gold paper would be too obtrusive and garish.

When the process of papering the walls with first, the Japanese gold paper, and then the tapestry or foliage paper is accomplished, a coat of thin shellac may be applied to the entire wall space that is to be covered. It has the effect that a wash of thin color has on a water color drawing. It subdues the coloring and holds the papers together, and at the same time gives the wall treatment the effect of old

The rose foliage paper is in tones of autumn colorings, soft tans, green or gray-rose tones shading into violet. This paper costs \$1.90 a roll and makes a beautiful living room. The tapestry paper of fruit and flowers is in tones of gray, green and old blue, and is excellent for a dining room.

Such a treatment of wall space is too striking and unusual to overdo, and one room papered in a house this way would be sufficient. Like many excellent things, it would lose its distinction if overdone.

A very beautiful shade of amethyst velvet, or velour if one prefers it, may be had for the portieres and over-hangings to use in the rose-papered room. A better match would be hard to find, and the dark rich shadows of the plain hangings contrast admirably with the design covered

A double-faced Smyrna rug of amethyst color with a border of slightly darker tone would be perhaps the most inexpensive one to use.-House and Garden.

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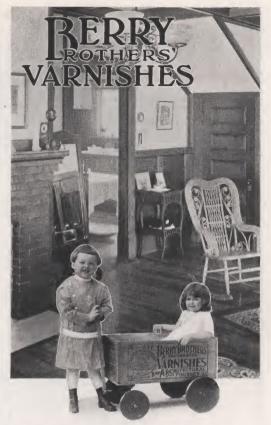
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ANSWERS TO QUESTIONS ON INTERIOR DECORATION

Editor's Note.—The courtesies of our Correspondence Department are extended to all readers of Keith's Magazine. Inquiries pertaining to the decoration and furnishing of the home will be given the attention of an expert.

Letters intended for answer in this column should be addressed to Decoration and Furnishing Department, and be accompanied by a diagram of floor plan. Letters enclosing return postage will be answered by mail. Such replies as are of general interest will be published in these columns.

A Uniform Finish.

E. G.—"Enclosed is the floor plan of our house. My furniture for both living and dining room is Stickley's Craftsman. What finish would you suggest for the woodwork? I think I want two tones of brown for walls of the living room and blue for dining room, or would you use same color in both rooms?"

Ans.—Replying to your favor of recent date, a fumed oak finish is advised for woodwork throughout the main rooms of first floor. We think the ceilings too heavily beamed for small rooms and would advise eliminating this feature where it runs through into the hall, but retaining the wide opening. We think the wall tones suggested extremely good and old blue a very agreeable color for the southwest dining room. We should continue the brown tones of living room in the hall, relieving them there with color in the window treatment and in the rugs, dull yellows, touch of red or blue and ecru, with pale ecru ceiling continued on into the upper hall.

A hall seat or window seats cushioned with tapestry combining these colors would materially assist, also a handsome chair seated in the same tapestry. The living room we would keep mostly in the browns and creams, but with bits of color here and there.

nere and enere.

Remodeling a House.

L. K.—"As a reader of your magazine I would be interested in your opinion for the decoration of my home that I am now having remodeled.

"Kindly tell me how to have my bedroom floors finished. The casings are white enameled with the doors in birch. They are the one-panel doors. The floor is of the narrow hard pine, laid to a cen-

ter. What color would you suggest for the floor finishing? The furniture in one room is bird's-eye maple and mahogany in the other. What kind of rugs, paper and drapery shall I use in each room. One room is on the northeast with four large windows, the other southeast with five windows.

"On the first floor I have a long hall, dining room, parlor, sitting room and bedroom. The casings and woodwork in these rooms are in the walnut. I wish to lay a new floor and ask you what you suggest. I have thought of using the narrow oak flooring. If I should use this, would you leave it in the natural or stain it? The parlor and sitting rooms are connected together with a large opening and are on the south side of the house. What paperings and draperies would you use in these rooms, what rugs and furniture? The ceilings on the first floor are all 11-foot. The parlor has a large window on the east and two good-sized ones on the south. In the sitting room I have two large French doors opening from the south onto the porch, with window in the east. In each of these rooms there is a fireplace with walnut grates.

"The dining room is 16x18, with walnut grate and large window in the east. On the north I have a large china closet and buffet built in the room. It is beautiful with its mirror back and beveled plate glass doors. It is made of birch. The woodwork in this room is also walnut. The ceiling is beamed and wood paneling around the room five-foot, all walnut. The floor in this room is oak. Would you finish it in the natural or stain to the walnut? What papers, draperies and furnishings would you suggest for this room? Will use new furniture in this room and the parlors."



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Ans,—Replying to your inquiry as to interior decoration in your remodeled house, it is advised to use sufficient stain on the oak floors to bring them into harmony with the walnut finish. One of the cardinal principles in decoration, and one most frequently violated, is that the floors shall be as dark in tone as the woodwork, at least they should approach the same tone. The bedroom floors need not be stained.

"You do not say whether the birch doors are to be stained or not. In the bedroom with mahogany furniture, we should advise a dark mahogany finish for the doors. In the room with the bird's-eye maple, they should be finished natural. We should put the mahogany furniture in the southeast room and use blue for the color scheme of the wall, rug and furnishings. The bird's-eye maple in the northeast room would be charming with the wall done in a paper which comes in a pale grevish tan slightly broken lines, but having effect of plain, with cap piece on each strip of paper forming a 15-inch frieze of pink roses with delicate, drooping foliage. With a chamber rug in the same coloring and scrim curtains with a border of pink roses and leaves, the bird's-eve maple would have a lovely setting. It is a pity the woodwork is not cream instead of white, as that would be more in harmony.

In the center hall a tapestry panel, either real or paper, above the walnut wainscot would be ideal, with the wall above and ceiling tinted or papered a neutral harmonizing tone, the same carried on the walls of the upper hall. From this hall the southeast parlor would open well, done a Tiffany blend of green and grey with hangings of lichen green and Shawmut rug in three shades of the same

The dining room on the north and east should have a decorative paper in golden tans and autumn leaf coloring above the paneled walnut, with ivory ceiling. A rug in warm crimson with crimson side hangings at the windows would complete a very beautiful room. The birch buffet and china closet should of course be stained to match the walnut. Dining room furniture in fumed oak would be a good choice.

General Suggestions.

T. J. C.—"Please give suggestion as to the decoration. I will try to tell you the colors we had in mind for the various rooms, although they may not be at all appropriate to the scheme you suggest, in which case please feel at liberty to use your own judgment in every detail. We want the upper floor to have white woodwork with mahogany doors. How shall the white pine floor be treated? The room over dining room will have bird'seye maple furniture."

Ans.—We are glad to give you such general suggestions on your interior decoration as possible without samples of the stains, colors and materials suggested.

Taking up first the treatment of the lower floor, it is advised to use a uniform wood finish thru the halls, living room and dining room. We understand that the trim is plain oak, not quartered, and as the color of stains on plain oak is quite different from quartered, we think Grey Weathered Oak, would be the best choice. Inasmuch as both living and dining rooms have a strong southern exposure, we do not think the yellow brown tones the best to use in these rooms. We should not use mahogany furniture in either of these rooms, nor in the reception hall. Oak furniture with a Craftsman finish, a sort of greyish brown not very dark, would be most in harmony with the woodwork, tho Circassian walnut could be used in the dining room. It is newer than oak, also more expensive. The piano could be placed along with the oak furniture, as, in any event, it must be used with oak woodwork. We would suggest for the living room a library table in the center, of the Craftsman oak, and in front of it, facing the fire with back against the table, a small davenport in the same oak. We would have a couple of oak arm chairs, both these and the davenport upholstered in a small figured tapestry with prevailing tone of sage green. The library table should have a mat nearly the size of the top, of sage green velour or velvet, and there should be a brown wicker morris chair cushioned in sage green velvet or corduroy. The rug should be a Saxony or Shawmut having center of



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plain sage green with border in three shades, lighter and darker. On the wall we would use a paper in blended light browns and greens, what is called a Tiffany Blend. If the brick in fireplace is not already laid, let it be pale brown instead of red.

Now this certain tone of green will open delightfully into the dining room done in dull blues. Of course we cannot enter into all the details here, but these would be given with the other service. There is a delightful paper in soft browns and rose with touch of green in a small tapestry figure, that would be admirable in the lower hall. The parlor woodwork should be pine painted deep ivory, but if oak is already in place, we will use Silver Grey Wood Dye, only it must be applied thin, so as not to be too dark. With this, a wall hung in soft pinkish grey or mauve with old rose rug, window hangings and mahogany furniture. We would use a uniform stain on the floors downstairs, the same stain as standing wood only thinner.

Of course the ideal kitchen and pantry nowadays is all white, and as your kitchen has only a north light, it demands very light treatment. However, Light Buff, really a very deep cream, would be a very good substitute and not so delicate.

The upper hall and bedrooms should have white woodwork excepting the one for bird's-eye maple furniture, where the woodwork should be cream. Mahogany doors should not be used in this room. The pine floors must be filled with a paste wood filler, then two coats of prepared wax. The kitchen and bathroom should have linoleum.

The bathroom should be all white or ivory, but do not use a gilt decoration with nickel fixtures. No decoration at all is best.

The guest room could be made charming in rose and deep creams or a ground between cream and grey, with a deep frieze of pink roses and trailing leaves; Madras curtains to match.

Treatment for a Florida Cottage.

G. N. S.—"I am a regular reader of your magazine and would like some ideas or suggestions on decoration and furnishing of my new home by mail, for which find

enclosed postage. I send floor plan of house. The whole house will be finished in the brown oak stain and waxed. In Florida we want the simple life and things easy to keep. There is a space where front door opens back between that and the folding doors. I had thought of a mission rack here and hall chest or seat. Is not this suitable in living room? I thought of settee between mantel and door going into hall. In this climate we can't have too many built-in things on account of insects."

Ans.—Replying first to questions about treatment of living and dining rooms, as these rooms have a south and southwest exposure and in your climate, we should advise a wall tone of grayish green, not dark, with ceiling two or three shades lighter in living room. Such a color tone will also best harmonize with the light oak finish, the mixed character of the furniture and the red brick fireplace. The latter we hope is a dark shade of red.

If tints are to be used on walls, we would carry the same color into the dining room, but if possible, use a decorative frieze above the picture mold; either stenciled or paper. A design of grapes or apples and foliage would be very pleasing. A paper frieze should be applied with a tinted wall.

The idea of brown oak furniture in dining room is good. We should use rugs alike in both these rooms and nothing is better for such use than the Wilton Moresque frequently recommended in these columns. It is handsome, will stand hard wear and comes in soft, rich colors. We sympathize with your preference for large rugs and cannot endure small rugs kicking around. A ready made rug, large enough for your living room would cost nearly \$100, as it should be 17 or 18 feet long and these special sizes are very expensive. But a mossy green Wilton Moresque 10 ft. 6 in. x 17 ft. can be made to order for about \$60.00, plain, without border. A smaller one 9x12 ft. for the dining room would cost only about \$30.00. I know of nothing else so really good for that money. We have had these rugs made and shipped by freight to a number of clients who are extremely pleased with them.



 $R^{ ext{EGARD}}$ your lighting fixtures as part of the Furniture of the room, and select them to harmonize.

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In regard to new furniture for the living room, we would not put a hat rack in this room. It is a pity that two feet of depth under stair was not recessed back from living room and there the hat rack with seat beneath could have been placed, while there would still have been ample space back of this for the coat closet with door opening into the hall. If it is now too late to do this, you could have a simple wall hat rack in the hall, without any seat. The new table we would get in nearly the same finish as the other pieces, but any other chairs we would get in light brown wicker and upholster in green English cretonne. Also a wicker couch upholstered the same. If the wicker would be too expensive, have a couch made. It is truly a pity that a dark mahogany stain was not used on woodwork of music room, since pine takes this stain so well and since you have all those old mahogany pieces. It might still be done, as the wax finish is easily removed.

The blue rug will be excellent here and a Favrile blend paper, showing blended tans with tint of dull rose on the walls, pale ecru ceiling. If possible, take off the old hair cloth and do over the chairs in deep blue corduroy. Use plain scrim curtains throughout the lower floor. All the floors should have a brown stain.

Upstairs the floors can be finished natural. Your daughter's room will be very pretty with a wall of blue chambray paper running a narrow rose-vine border around it. The rugs can be Priscilla ragrugs, blue centers with striped borders on ends of pink roses on white ground. Curtains of white scrim with rose-vine border on edge. Such curtains can be had here for 35c yard.

For your own room with the cherry furniture, we suggest a light green wall with grayish green matting for rug. There is a charming cretonne in light greens with wild roses and honeysuckle that would add an effective note, used to cushion chairs, a dress box, etc.

With oak for boy's room, the woodwork should be painted a dull sage green and the white iron beds the same.

In regard to shades for windows, the exterior color of the house must largely govern the selection.



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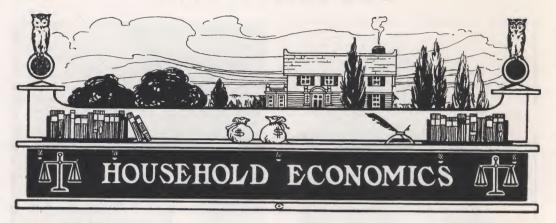
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Who Would Be a Servant?



S I am writing, one of the New York papers is carrying on an active controversy as to the relative merits of housework and

other employments for women. With the merits of the question I have nothing to do, except to remark that it is utterly impossible for me to understand any person of refinement accepting the social conditions of domestic service. But the thing that emerges from the discussion is the fact that the average mistress seems to be exacting to the last degree and richly to deserve all she gets in slovenliness and impertinence.

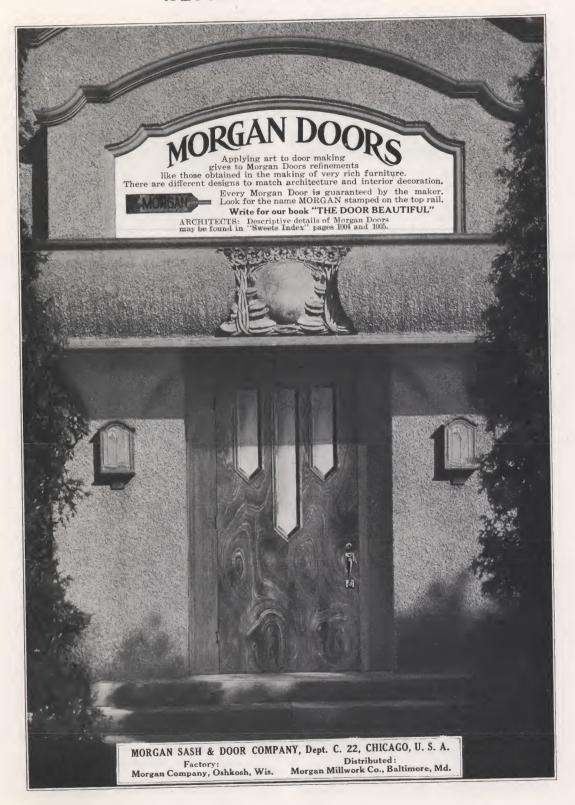
Women write about living in places where they began work at seven in the morning and did not get through till after eight at night, and had no time to themselves during the day in which they were free from interruption. It would seem that domestic service is a region remote from all the precepts of common humanity to say nothing of the obligations of the Golden Rule.

The average woman is not inhumane, nor is she inherently selfish, but when she comes to the matter of the treatment of servants she seems to be dominated by a set of inherited traditions and prejudices that swamp her moral perceptions entirely. The solution of the domestic problem is largely a matter of intelligent putting one's self in the place of the servant, and of conceiving of her as endowed, not with the same refinement and taste, but with the same physical organization and the same need for recreation and variety as one's self.

Time was when the average servant was extremely strong physically. She

was usually a peasant from Ireland or Germany, or a negress accustomed to work out of doors in the South, and she was very nearly as strong as a man, capable of working long hours without exhaustion. Today we are dealing with the second generation of immigrants, born in tenement houses and poorly nourished. They have far more aches and pains than ourselves who have lived all our lives in sanitary surroundings, under good hygienic conditions, enjoying the benefit of abundant exercise and of athletics in one form or another. We wear shoes that fit our feet, we stand properly; our backs do not ache and our feet do not swell if we have to do housework. We have had the sort of mental training which enables us to arrange our work systematically and to do it with the least possible expenditure of energy. We have also an intellectual outlook which lifts us above the thought of drudgery even in very commonplace tasks, and more than all these we work for our own advantage and not for that of another person.

The very first duty of the housewife with a new maid ought to be to teach her to do her work to the best advantage and with the least effort. You have done a great deal when you have taught a woman of her class to stand properly, to keep her spine straight and to kneel instead of stooping. The difference at the end of the day's work is incalculable. teach her to plan her work to advantage is more difficult, and some women never learn. In that case, you must simply make up your mind to do her thinking for her. If her mental processes were expert she would not be in your kitchen. And side by side with this help should go the



disposition to let her do her work in her own way, as long as the result is satisfactory and she does not take too much time. Particularly does this apply to cooking. Rule of thumb may be incomprehensible to you who are tied up to your particular cookery book but, if her cake is light and her drawn butter smooth and savory, what difference does her pro-

cess make to you?

Every place has its custom as to days out, its irreducible minimum of privilege, arranged originally to protect the maid in her right to a certain amount of leisure and recreation. We hear a great deal about the minimum wage, but no one proposes that it shall be universal. There would seem to be no good reason for keeping a maid in on abstract principles. A good many people seem to need to realize that the sort of formal social life which is inseparable from the idea of perpetual service cannot be adequately kept up by people who have only one servant. On this point there is a good deal of illuminating discussion in that very charming book, "Home Life in Germany," by Mrs. Alfred Sidgwick. What if one of the family has to answer the bell in the evening? Is the inconvenience or annoyance sufficient to make it necessary to keep a maid at home from her business or her pleasure on the chance of a visitor? If one has little children it may be necessarily occasionally to keep the maid in at night, but it is easy enough to give her some time off in the day time to make up. Most of the difficulties of domestic service will disappear when we mistresses recognize the fact that housework is a good deal more arduous than other kinds of employment, and that the day, although it cannot be arbitrarily fixed as to hours, ought not to be longer than the factory or store day. And we must also take into consideration that the isolation of the domestic worker makes it all the more imperative that she should have liberty to use her spare time as she pleases. She is not of our class, she would not be a satisfactory servant if she were, but she is of the same body, parts and passions as ourselves, and entitled to the same consideration as if she were our social equal.

Does It Pay To Make Preserves?

Every year more and more people answer this question in the negative, many

of them because the conditions under which they spend their summers make anything of the sort quite impossible. It does not pay to make preserves when you have to give prohibitive prices for your fruit, in addition to the expense of freight charges on jars and glasses and on the finished product. People so situated find it cheaper and less troublesome to buy

what they want.

But for people who are at home nearly all summer it certainly pays to make preserves, unless the family is exceptionally free from "sweet tooth." Right here a few figures may be in order. Last summer the writer spent several months in a house on the outskirts of a New England city, and made preserves not only for her own family, but for a cousin who was absent from home for the summer. There was a good deal of fruit on the place, and cherries, currants and gooseberries may be left out of the calculation, also grapes, of a very ordinary sort, but very good when spiced. Other fruit was bought of an ordinary dealer, at what seemed a very high price, as compared with the current rates of the New York markets. Nor was sugar at its lowest rate at that time. Allowing for these drawbacks, the cost of peach preserves, in a heavy syrup, threequarters of a pound of sugar to a pound of fruit, was twenty cents a quart. Damson plums cost seventeen cents a quart and crab apple jelly four cents a glass. It seems as if it were worth while, does it not? Canned tomato, made from thoroughly ripe, selected fruit cost about four cents a quart. Chopped pickles and a capital imitation of Crosse & Blackwell's chow chow cost less than eight cents a quart, and tomato catsup about six cents a quart.

Given a suitable place in which to keep preserves and a very limited amount of spare time, a well filled preserve shelf is at any one's command, and is a wonderful comfort, not only in an emergency but as a means of supply wholesomely and economically the perfectly legitimate craving of the human system for sugar in some form or other. And in these days of obscure forms of intestinal poisoning, it is something to be sure that you are not using articles of food that may be chemi-

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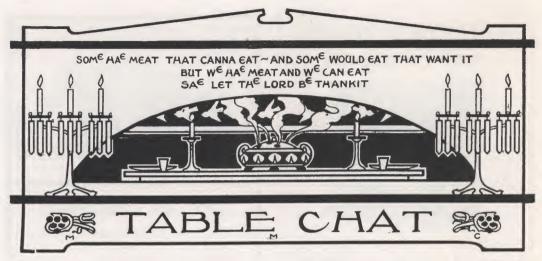
If you are planning to build a new home or to remodel an old one you will be interested in reading The TUEC Book. It will make clear to you a great many things you had never understood concerning sanitary housekeeping. It will also show you how you can insure your home against dirt and the troubles, annoyances and diseases that are due to the presence in the home of the fine particles of dirt that ordinary methods of cleaning can never overcome.

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June Roses and Ginger Jars



HILE it is perfectly true that flowers are beautiful anywhere, it cannot be denied that they gain by an appropriate setting, and even the queen of flowers has a choice of green glass, although there are some grays that are exquisite with yellow. White roses are charming in colorless glass, plain not cut, and they need a good many of their own leaves. I never see



JUNE ROSES AND IN A GINGER JAR.

vases. One of the very prettiest receptacles for roses of varying shades of pink is a ginger jar, one of the old fashioned sort, decorated with a brush, in gray blue tones on a pearly white ground, and the sketchier the ornamentation the better the

Yellow roses, I think, look best in

any of the red or deep pink roses without recalling the account of a dinner at Newport, in the days when bare tables were a novelty. There was a square of costly lace under a silver bowl of American Beauty roses, and all the service of the table was of solid silver, with absolutely nothing to break the exquisitely polished



TABLE CHAT-Continued

surface of the mahogany. While the silver dinner service may be impracticable, some of us have silver bowls, though they may be plated.

Commencement Spreads.

This is the month of closing schools and all the pleasant flurry of class days and commencements, and, as man must eat, the preoccupation of very many people is how we shall feed him to the best advantage at the least expense. A caterer, of course, makes the whole thing

resses should be provided with trays large enough to hold three plates, with room at one end for the napkins and forks. Plates of extra sandwiches can be circulated after everyone is served. Damask napkins are more elegant but pretty paper ones are quite good enough, particularly if they are those very charming ones with inch-wide borders of pink or green and lines of gilt.

It simplifies the service of a large number if the coffee is served from a different point in the room from the salad. An



INDIVIDUAL SERVICE OF SHERBET AND CAKE FOR CLASS DAY SPREAD.

very easy, but at an expense which most classes ought not to afford, if they do. The easy way is apt to be cruelly hard for someone, and nowhere more so than in school.

It would seem as if every requirement were satisfied by a salad and sandwiches, some sort of ice cream and cake, with a constantly replenished punch bowl of lemonade. The June days are warm enough to make cold food agreeable, and such a collation can be gotten ready in the morning and leave everyone free for the fun and frolic of the afternoon, always taking it for granted that some of the elders will take charge of the serving.

It saves a great deal of time if the salad is served from the pantry, with the sandwiches on the same plant. The waiturn is very ornamental, but a relay of large pitchers is more practical, as you can pour so much more quickly. One person ought to take charge of the coffee, and study out the service before hand. As most people use cream, it is just as well to put it in the coffee in bulk, keeping a pitcher clear for the exceptional ones. Then only the sugar need be passed. There are always little sisters and brothers who are enchanted to pass the sugar bowls, and will do it most conscientiously.

If possible serve ices in sherbet glasses, setting each glass on a plate which will answer for cake. Of course you must serve bricks of cream on the plates. But cream in bulk will go further in sherbet glasses and they are not so sloppy.

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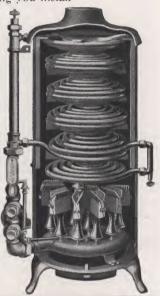
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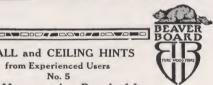


TABLE CHAT-Continued

Just What to Have.

Chicken salad is rather taken for granted, still there are other things that may take its place for a substantial. Jellied chicken, sliced, laid on a couple of lettuce leaves and dressed with mayonnaise is very nice. So is chicken mousse. Most people like boiled salmon with tartare sauce, but you must have an alternative for the few who do not. Or you may have pastry cases heated and filled with creamed chicken or sweetbreads.

When it comes to sandwiches, the simpler the better. With chicken salad, have plain bread and butter and devilled ham. With jellied chicken, ham and pimento cheese sandwiches. With boiled salmon serve plain bread and butter, brown and white, and green pepper sandwiches. With chicken or sweetbreads in pastry cases serve buttered rolls. Whatever is served should be in such shape that it can be eaten easily. The sandwiches should be of moderate size, crustless and so made that the contents will

not ooze out at the sides.

The very nicest thing possible for a June "spread" is strawberry ice cream, made from the fresh fruit, which is universally popular and as pretty as it is good to eat. The next best thing is a Philadelphia vanilla cream, with fresh strawberries. I think it is always a mistake to serve the soft and sticky, even if delicious layer cakes, on such an occasion. To serve them with ice cream is to gild refined gold and paint the lily. Also they are troublesome to make and involve the use of an extra fork. The mention of forks brings up a mooted question. Shall you or shall you not pass forks for the ice cream? It is the elegant thing to eat ice cream with a fork, but not everyone is elegant, and spoons are safe. Why not have one of the little sisters follow the tray with a basket of silver, spoons and forks, laid side by side.

This is an interlude. For cake you can do no better than to have an abundance of a fairly rich white cake, covered with a thick white icing, and cut in blocks, with an equal supply of chocolate loaf cake,

iced with chocolate.

The Contents of the Punch Bowl.

I think we shall all agree that a school spread is no place for any drink, even remotely alcoholic. Nor are the tastes of youth sufficiently exacting to look for a subtle mixture of flavors in the contents of the punchbowl. We shall do very well indeed with lemonade, sufficiently strong and sweet, and above all abundant. It gets a touch of sophistication from an addition of apollinaris, or of plain soda water, and a sprinkling of candied cherries, but neither are essential.

The Old Fashioned Strawberry Short Cake.

Just how you make your strawberry short cake depends upon the temperature at which you intend to eat it. If cold, by all means use a pastry crust, the richer the better, but not puff paste, just a rich, flaky, "family piecrust" with plenty of butter, some rubbed in and some spread on. Cut into four-inch circles, baked delicately, and when cold, filled with crushed and sweetened berries, it is a delightful sweet, but hardly a shortcake.

But for the other sort, which is served neither quite hot, nor yet cold, you must have a nice biscuit crust, mixed with milk, and shortened with butter. Some people use lard, and I am told that butterine is

excellent.

The dough must be as soft as you can handle it. Roll it and cut from it two circles. Lay the first in a buttered pie plate, rub a little melted butter over the top of it and put on the other layer. Bake in a quick oven, separate the two layers and butter them liberally, put a thick layer of crushed and sweetened strawberries between them, put the cake on a plate and cover it closely, leaving it in an open oven or on the side of the range till serving time. Serve with cream.

An easier way of managing the layers is to mix your dough no thicker than a cake batter, pour half of it into the pie plate, lay a circle of waxed paper on it and then pour on the rest of the dough.

A Strawberry Pudding Sauce.

When a tablespoonful or so of strawberries or raspberries are left over, plan to have a bread or batter pudding the next day. Make a good hard sauce, crush the strawberries and add them to it, beating it well and adding a tablespoonful of brandy.



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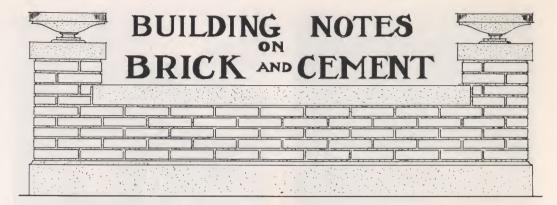


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these requirements.

The heavy longitudinal ribs of Self-Sentering are spaced $3\frac{1}{2}$ inches on centers, while the connecting fabric is of the true diamond mesh type. Every ounce—every strand of Self-Sentering is doing its share, because the metal is continuous and there are no breaks at right angles to the line of stress.

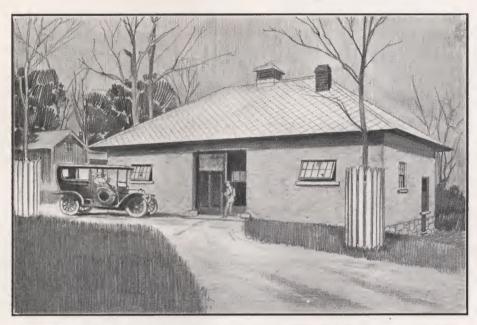
How Bricks Are Made.

Since our ancestors first built themselves huts of earth, centuries have brought changes and improvements in bricks and brickmaking. The first crude, hand-shaped, sun-dried blocks of clay crumbled ages ago. Even Pharoah, that famous brickmaker of antiquity, was outclassed by the people of Babylon as well

as by the Greeks and the Romans. The long thin brick so effective in many of our fine houses today is called Roman because the conquerors used that shape twenty centuries ago.

In the making of one ninteenth century brick, I followed the whole process of making a modern brick from the mines whence the clay comes to the cars in which the finished bricks are shipped to their destination. The clay from which the buff bricks are made, and which, by the way, looks like hard gray stone, is far underground, while the red clay which is mixed with it to make the necessary varieties in color, comes from outside. The inflaw, are taken to the cars and packed for spection which takes place under the strong light from a great sky window is very thorough. The bricks that are whole and sound with no chipped edges nor broken corners, in fact, those that are without shipment.

This is the story of a simple, dry pressed brick-plain buff, gray or red. When the surface of the brick is glazed or enameled or different in any way from the foundation clay there are additional processes. Experiments are first made in the laboratory until a "slip" is obtained of the required color and consistency. The face of a plain brick which has already been made and fired is dipped in the slip. After dry the brick must be fired a second time. The different tints that can thus be given to the bricks are almost endless and the shapes are varied as the colors. For they are by no means all made with flat surfaces and square corners, but are rounded, triangular or any form that is needed in modern building and the faces are ornamented with curves



Garage of Stuyvesant Fish at Garrison-on-the-Hudson, N. Y., roofed with Asbestos "Century" Shingles by Joseph Davis, contractor, of Garrison-on-the-Hudson. Reproduced from an Artist's drawing.

Asbestos "Century" Shingles

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Keasbey & Mattison Company

Dept. G, Ambler, Pennsylvania Branch Offices in Principal Cities of the United States and angles, graceful arabesques and even elaborate modelings of fruit and leaves and flowers.

In describing the actual manufacture of the bricks, I have said almost nothing of the artistic side of the work. The possibilities here are infinite. Not only do the colors range from a creamy yellow to buff and dark brown, from palest terra cotta to that deeper shade whose name is brick red, or from the faintest, most delicate gray to the darkest of stone colors, but there are bricks whose manganese speckles make them look like granite from the New Hampshire hills and others that are white and glistening like marble. The faces of others are chiseled by hand into the semblance of rough-hewn stone.

Again bricks are not only ground for doorways and arches, and embossed and ornamented for moldings and cornices, but are pressed into shape for massive cornerstones, or into circular blocks from which to build mighty buttresses or slender, graceful columns.—The Building Age.

The Ideal Concrete House.

The ideal house of concrete is one with a flat roof, crowned by a parapet or some simple perforated patterning such as one sees in the country barns of Italy for airing the hay. It is better to avoid the stereotype balusters and moldings (which have so long been associated with stone work), not because of any difficulty in casting, but simply to avoid stamping concrete in imitation of stone.

The flat roof is suggested in preference to the pitched because it is obviously cheaper and is the natural form. Shingle or slate roofs are pitched to insure a dry interior; a flat shingle roof would, of course, offer but little protection from water. The flat concrete roof, when composed of a rich mixture and properly done, is a perfectly practical roof. When covered with flat tiles of a pleasing shade it makes an ideal roof-garden. In favoring the flat roof it is not to be understood that the pitched roof is impracticable. It is simply more costly, necessitating a rather cumbersome roof construction and is created only for exterior effect. If the visible roof is desired it should be kept as simple as possible, for the complicated roof of the frame house with innumerable dormers is really quite out of the question in concrete. —House Beautiful,

Cement-Asbestos Roofs.

You are building a house and are ruled by economy. Fireproof shingles cost almost double the old-fashioned kind, the difference being perhaps, \$50.00 in all between a roof of wood and of cement-asbestos. You put \$50.00 into your pocket and consider it economy. Fifteen years from now, or perhaps less, a neighbors' house or your own chimney catches fire, a brand drops on your roof, the seasoned shingles are ablaze in a minute, the attic is filled with smoke and before the fire department gets a lead of hose to your house the blaze has done \$500.00 worth of damage. Insurance covers the actual monetary loss, but how about the inconvenience, the nervous shock and the possibility of loss of life and complete loss of your property. All of this to save an investment of \$50.00. Does it pay?

Thousands of years ago people "went up on house tops." They made 100 per cent use of their homes. They lived inside or on the roof, according to the weather.

We build roofs at considerable expense and usually so steep as to be uninviting even to squirrels. Overhanging trees serve only to drop leaves into the gutters. Sheer waste.

At one time we could not make a flat roof that would be tight and lasting. To-day a watertight, concrete slab roof is a real economy over the steep pitched roof covered with heavy tile and far preferable to a shingled affair, a constant fire menace.

A flat roof, a simple parapet wall for protection, an overhanging tree, these are elements, which added to the average city house would give summer comfort. This would be efficient house building.—Portland Cement Bulletin.

Concrete and Brick.

At Northampton, Mass., a novel retaining wall has just been built that is effective both as to design and structurability. It consists of concrete with a four-inch facing of brick. The concrete part of the wall was built up in the usual way, prop-

A Stucco that Retains Its Beauty

Stuccos which become mottled, stained and discolored by iron and foreign matter contained in the sand, spoil the effect of many good architectural designs.

Sand, which is necessary in most stuccos, contains iron and other foreign substances which cause stains. Sand stuccos also lack the elasticity necessary to resist cracking when the frame construction beneath them dries out and shrinks.



Residence of M. C. Madsen, Long Beach, L. I. Covered with J-M Asbestos Stucco.

J-M ASBESTOS STUCCO

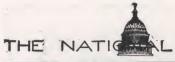
requires no sand because composed of Portland Cement and Asbestic—which is asbestos rock and fibre ground together. ¶ The many tough strands of asbestos distributed through it make this stucco more fibrous than granular, more like a fabric than a plaster. ¶ It adapts itself to shrinkage of woodwork beneath and retains its beautiful uniform color indefinitely. ¶ J-M Asbestos Stucco is one-tenth cheaper to apply, owing to its light weight, and offers the greatest outside fire protection a frame structure can have. ¶ In prepared form it can be furnished in white and various shades of gray, buff and brown. ¶ Write nearest Branch for Booklet.

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Keith's, June, '13.

erly stepped at the back to prevent bulging and thoroughly reinforced with steel rods; but it was in combining the brick with it that the unique feature was evolved. For the brick, obviously, could not be built up simultaneously with a plastic material that must be poured into a mould and allowed to set. The difficulty was overcome in the following in-

genious manner:

First the height of the brick courses, including joints, was carefully figured out and every fifth course was marked on the inside of the wooden form that was to support the wet concrete. At these points two-and-a-half by four pieces were fastened to the form, edge on, so that when the concrete had hardened and the form was removed, long slots the height of a brick course, four inches deep and five courses apart, appeared in the face of the solid wall. With the aid of these it was a comparatively easy matter to lay up the brick, bonding every fifth course, with all headers, into the corresponding slot. In this way a perfectly satisfactory piece of masonry was produced. Even with such thorough union of the two materials, however, water could still have soaked through and lodged between them (which, if it froze in winter, would have produced the inevitable bulge), had the precaution not been taken to cut a number of weep holes through the concrete and to omit the corresponding half brick. In addition the back of the concrete was waterproofed before filling in. We give this process as a good suggestion for garden retaining walls where the color of concrete might be considered too cold and uninteresting for the general scheme.

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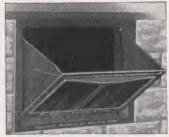
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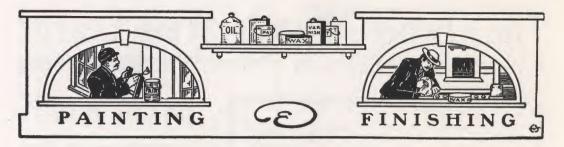
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Painting Interiors of Steel Tanks.



E were recently asked to advise how to paint the interior of a steel tank to be used as a swimming pool having an interior sur-

face of about 1,000 square feet. It is well known that such tanks are difficult to maintain, because the paint is softened by the continuous soaking in water. Obviously a hard paint is required, yet it must not flake off. We therefore must get, first, a clean metallic surface to paint on, which is best done by sandblasting, but may be had by scraping and wirebrushing; and on this apply a fairly elastic, adhesive priming coat.

We will, therefore, to 90 lbs. high grade dry red lead add, say, 17 lbs. fine litharge (as we shall need about 112 lbs. pigment); and to 40 lbs. of this mixture add one gallon boiled oil (boiled oil resists the soaking action of water better than raw oil), and it will make a better working mixture, if we add also a half-pint or so of turpentine. This is for a priming coat and should be allowed to dry hard all through.

On this surface put two coats composed of 72 lbs. of the red lead and litharge mixture and 3/4 gal. boiled oil and 1 gal. turpentine; each of these must be allowed plenty of time to harden.

On this as a substantial foundation apply two coats of flat white lead made by thinning 75 lbs. paste lead with 1½ gal. turps. and 1 pint of dryer. This will make a fairly white surface, not soft enough to absorb much water, on which two coats of some good white enamel paint should be applied. Such an enamel should be made from a high-class varnish, made with hard varnish gums, and white zinc (not lithopone) or a mixture of at least two parts zinc to one of white lead for the pigment. Such enamels are made by all the best varnish-makers, and

should be such as the makers recommend for the purpose. It will take four or five gallons of a rather high-priced enamel paint for this job; this is, so far as material is concerned, the costly part and each of these coats should have plenty of time to dry. Enamels contain comparatively little pigment and a good deal of vehicle and cannot be hurried. Naturally they are not very opaque, so they must be put on a white under-coat.

Such a job, if well done, should last well, but remember that if everything else is all right and the original iron surface is rusty or dirty, even a little, it is all liable to come off; so look to the cleaning of the iron before all things.—Dutch Boy Painter.

"Paint Problems," Solved by The "Dutch Boy Painter."

Mixing Red Lead.

Many painters add water to red lead when mixing it. Does this improve the red lead?

This is a custom which has been followed in the past to moisten dry red lead so as to have it in paste form. Whenever this is done it is, of course, mixed with oil before it is used. So far as we can learn the custom has nothing whatever to recommend it. The oil ultimately drives out the water so that the water evaporates, having no effect on the paint one way or the other, except that it may cause more or less dampness on the inside of the paint coat. Such dampness is a detriment rather than a benefit. It is best to leave the water out of the red lead and mix the red lead and oil together by adding the oil gradually, making a stiff paste at first. This prevents the lead and oil from becoming lumpy.

Preparing Plaster Paris.

I find that plaster paris sets very quickly when mixed with water, making it nec-



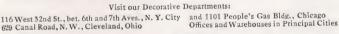
One of the illustrations shown in our Portfolio. The painting specifications for this house are: ROOF—S-W Preservative Shingle Stain C 74
TRIM—S-W French Crown Green S-W Gloss White

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you need the Sherwin-Williams Portfolio of Plans for Home Decoration. It is an artistic, practical working guide. It shows the possibilities of paint, varnish, stain and enamel in securing results that are sanitary, durable and beautiful. It contains a score of color plates, with ideas and color schemes for every detail of the home. The

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shows just what colors go together and why. It tells just what finishes should be put on what surfaces, and why. It describes the many Sherwin-Williams Paints and Varnishes for use about the home, and shows why each of these is the right finish for the surface on which it is designed to go. Send for the portfolio today. A line will bring it, and the asking puts you under no obligation of any sort.





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PAINTING AND FINISHING-Continued

essary to work very rapidly in pointing up a wall preparatory to painting it. Is there any way of overcoming this tendency of plaster paris to set?

This trouble can be almost entirely overcome by pouring the water on the plaster and letting the plaster absorb it. Do not stir or mix them. Preparing plaster paris so that it will not set quickly can also be accomplished by adding glue-size to the plaster and water.

Stone Ochre

Will you kindly explain what is meant by stone ochre?

Stone ochre is a name referring to color, i. e., stone color. Ochre is normally yellow shading toward brown: so that stone ochre is not ochre at all, but is a filler tinted to suit the taste of the buyer. Stone ochres are commonly made of barytes with as much lead as the price will allow.



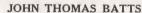
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Minimizing Corrosion in the Hot Water Supply System.



N a paper on the "Durability of Welded Steel Pipe," reprinted and commented upon in Engineering News, Mar. 23, 1911, there

was discussed the results of investigations on the relative corrosion of iron and steel in service, and the influence of the dissolved gases (oxygen and carbonic acid) in water and a scheme was suggested for rendering the water practically harmless by removing the air after heating. So far as the writer is aware, however, no system has yet been designed with this as the main object.

In the paper referred to, the writer pointed out, first, that the superiority claimed for "genuine" wrought-iron pipe had not been proven by comparative tests in service; on the contrary, the numerous cases which are on record (and which have been largely added to since that time) show conclusively that where both iron and steel have been used together in water lines, the wrought-iron pits just as badly as the steel under the same conditions.

These results again indicate that the intensity of conditions have much more to do with the corrosion than anything else; so much so that the same material used as a pipe in a hot-water heating system, where the water is practically free from oxygen and unchanged, should last 50 years or more, while in a closed hot-water supply system it may only last five or six years.

This principle of heating and freeing the water from dissolved oxygen, by which it seems possible to prolong the life of standard welded pipe several times, is surely worthy of careful consideration in designing piping systems which are subject to corrosion.

A recent investigation, undertaken by the writer with the assistance of some of his research staff, has developed interesting points in regard to the present practice of laying out hot-water supply systems. The influence of the arrangement of the piping on corrosion seems to be quite marked, depending on whether the gases are liberated before the water enters the distributing system or not, although the separation of these gases is only partially accomplished under the best conditions.

Upon this paper, the National Tube Co., Pittsburg, Pa., comments as follows:

"The facts cited by Mr. Speller appear to abundantly demonstrate that the most active agent in causing the corrosion of iron or steel immersed in water is the air and other gases which are contained in solution in the water. It is quite generally understood by engineers that water containing a large amount of carbonic acid gas in solution is apt to cause an abnormal amount of corrosion, but it has been frequently supposed that this was because water charged with this gas became a weak acid. Mr. Speller makes it clear, however, that ordinary air dissolved in water can cause active and serious corrosion, especially if the water is heated."

"The practical lesson to be drawn from these facts is that provision should be made wherever possible for removing the dissolved air and other gases from water before it circulated through pipes, boilers, etc., where these gases may do harm. By heating water to the boiling temperature in an open type of heater, the dissolved air and gases will be pretty thoroughly removed; and the life of the pipes through which the water has to pass should be materially increased by this simple precaution in design."

Application of Refrigeration.

Residence Systems and Other Small Plants.—Mechanical refrigeration is so much more sanitary than refrigeration with natural ice that refrigeration systems are pretty generally installed at the



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HEATING, LIGHTING AND PLUMBING-Continued

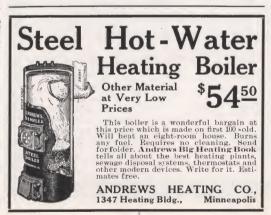
present time in large residences, apartment houses, hotels, institutions and stores where perishable goods are handled and sold. The general use and distribution of electric current makes the operation of a system automatic in operation as well as inexpensive. Mechanical refrigeration has consequently supplanted natural ice in most industries, and is found almost indispensable in breweries, distilleries, abattoirs, packing houses, market houses, butcher shops, fish curing establishments, fish markets, dairies, creameries, milk depots, confectionery and ice cream manufacturies, oil refineries, chemical works, morgues, bottlers, hotels, restaurants, club houses, asylums, steamships, general cold storage houses and for cooling water in office buildings and other large structures.

Portable refrigerating machines of small capacity mounted on a solid base so the entire plant can be easily transported from place to place are now made. In the March "Modern Sanitation" is shown a machine of this description made by the Remington Machine Company. It is made in two sizes, having capacities respectively of one-quarter ton per twenty-four hours and one-half ton per twenty-four hours.

These machines are especially suited for the cooling of refrigerators or small cold-storage rooms of from 200 to 1,000 cubic feet capacity, depending on the temperature required. The machine is erected on one base with condenser and fixtures connected together, all properly valved, so all that is required is the pipe

coil for the cooling of the refrigerator or storage room. It will be noticed that the compressor is belt driven, and the machine requires from one to two horse-power for its operation, depending upon the size of the machine.—Modern Sanitation.

Location of Registers in Houses.—It is improbable that there will be any great difference of opinion among those experienced in the trade as to the location of registers in houses in which furnace heating equipment is installed. The majority of experienced furnacemen favor the shortest possible pipe from the furnace and the register located near one of the inside rather than near one of the outside walls. It has been given as the experience of successful, observing furnacemen that registers near the outer walls are not so efficient as if placed contiguous to the interior walls of a room. With any system of heating the warm air at the ceiling, on approaching the outer wall strikes a cooler surface and falls along the wall increasing in velocity as it follows down the cooler wall until it drops with some positiveness near the floor. Consequently, when a warm-air register is located in the path of these down currents the warm air that should rise from it is retarded and in some instances the outflow is entirely stopped. This leads to a down current of this cool air through the pipes to the furnace, if the furnace is not adequately supplied with air from some other point. Invariably to locate a register near an outer wall means a longer pipe with an attending loss of heat in the cellar. There have been those who have observed that the location of a radiator and a register are selected from directly opposite points of view. Radiators as a rule are placed under windows where the greatest amount of cold air falls so that they can warm it as it falls or drive conflicting currents of warm air against it while the radiator proper sends its heat into the room. Registers should be so located that the warm air from the heater will be carried as quickly as possible from it to the rooms, where it will diffuse through the room in such a way as to warm it before it is chilled too much by contact with the cooler surfaces of the exposed walls.—The Building Age.





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SPLINTERS AND SHAVINGS

Making "Pulp" Lumber.

(Contributed by M. T. Sharp, Wheeling, West Va., for Keith's Magazine.)



HE following is a formula for making what might be termed "pulp lumber," or pulp tile, but by whatever name called it is very

easily made, is very inexpensive and very far-reaching in its utility, as it could be successfully made and used in most every home whether of the rich or poor.

"Seven pounds of dry sawdust to 100 pounds of unsanded gypsum stucco is the proportion," and that amount makes three square yards of lumber one inch thick. It can be made at a labor cost of three cents per square yard in ordinary wood moulds, having adjustable sides and ends and a rubber-covered bottom. By mixing a little stucco and sawdust and pouring into a cigar box and let it set the results will be surprising to people not familiar with the action of gypsum mortar—it sets very quick and when hard it can be sawed and can be nailed to wood study and the material holds nails very well. For a real cheap wall it can be nailed on the wood studs and the joint filled with mortar and you have an air-tight vermin-proof wall, or give it a skim coat of plaster and you have it ready for papering. Cast this lumber two inches thick and set between two-inch wood studs and form a solid partition which when given a half inch of plaster on each side is far less expensive than either wood or metal lath plastered, and on account of the fibrous nature of the lumber is more sound-resisting than the hard plaster applied on wood or metal lath. This lumber can be used in most all places where expensive plaster-board would be acceptable and costs within the reach of the poorer classes, for they can make it. The test mentioned will surprise the party who makes it, on account of the strength of the tile and the ease with which it can be handled and worked.

Failures Among Building Contractors.

(From The Building Age.)

Some of the reasons which have been instrumental in causing recent failures in close sequence among building and engineering contractors of more or less prominence are set forth in a very interesting article in the *Record and Guide*, and from it we take the following:

The primary factors in the troubles of firms suffering business embarrassment at this time are three: First, failure on the part of those figuring jobs to discount the steadily rising prices of building materials; second, under-estimating, and, third, taking business beyond the capacity of their resources through the process of "bunching." An attempt has been made to attribute some of these failures to slowness of steel deliveries, but those who are in close touch with the credit market say that this factor, instead of being potent, is only mildly contributive.

Basic construction conditions are ex-The real estate market is more active than it has been in almost six months. Building money is comparatively easy, especially for gilt-edged propositions; and the building material market is firm, with mill supplies conservatively low, prices stiffening, and the distributing market well stocked. Dodge reports show a healthy tone in the matter of prospective building operations throughout the entire metropolitan district, and architects as a rule report full boards. Such being the case, delay in deliveries of structural material, while possibly temporarily embarrassing to contracting firms by reason of withholding of process payments, should not precipitate a sound building firm. The real causes of failure. therefore, must be looked for elsewhere.

Competition among building contractors and engineering companies in recent years has been very keen. So many new concerns with limited resources have entered the building field that established houses have had to depend largely upon



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which explains all this and tells you how to materially reduce the high cost of living—how to have better, more nourishing food—how to keep food longer without spoiling—how to cut down ice bills—how to guard against sickness—doctor's bills.





SPLINTERS AND SHAVINGS-Continued

old customers and upon their reputations for reliability for new contracts. The result has been a partial recognition, at least, of what has come to be the "unwritten law" among contractors.

The small contractor, pushed hard to keep enough business in hand to hold his organization together, is sometimes tempted to ape the big firms and "bunch" a number of operations simultaneously.

During the last two years common brick has moved up from \$5.75 a thousand, wholesale, to \$6.75 and \$7 (summer quotations). Portland cement two years ago this spring was a low as 70 cents a barrel, Lehigh Valley, while the prospects are that it will be considerably over a dollar a barrel before the spring building season actually starts. Structural steel, two years ago, was considered high at \$27, while today it is stiff at \$31. Lumber, in all departments, has advanced at least five per cent since 1909, and this week's reports show that practically all lines will move to even higher levels than have heretofore existed when the spring season opens. Stone, sand, roofing, equipment and labor all cost more today, and the increasing demand for fireproof construction only tends to make the cost of construction move higher.

In the face of this sharp rise in material prices, competition has been such as to force construction prices down, and the inevitable consequence has been smaller profits, if not actual losses.

The Percentage Contract.

Many people refrain from building homes because they have been told by their friends that it always costs more than they thought it was going to do. And then explanations of how much this "extra" cost, and how much more this involved than the original amount provided for, are forthcoming, with the result that the man who had notions of putting up a \$3,000 or \$4,000 residence decides to pay rent a while longer and not risk plunging in over his head.

This condition is remedied to a large extent by the percentage plan, for a limit is always fixed beyond which the builder may not go. And when there is added to this, as is frequently the case, a provision that the builder is to receive 50 per

cent. of the saving that is made on the original estimate, there is every incentive for him to reduce costs at every turn, and to put the building into the hands of the owner, complete, for less than had been expected, instead of more. This is the modern profit-sharing idea which has been found to work well in manufacturing and mercantile establishments, and there is no reason why it should not be a success in the construction field.

In the average dwelling proposition the contractor who takes a job at a low figure cannot help trying to increase his profits to normal by putting in the inevitable extras at a pretty high figure. This is what most owners object to; namely, that the bids are not a fair indication of what the house is going to cost. When the percentage system is used, extras go in at no higher figures than any other items, and the tendency of the builder, especially if he is on a basis similar to that outlined above, whereby he as well as the owner will profit through securing a saving in the cost of the job, will be to reduce the expense attached to these, instead of increasing it.

The system is eminently fair to the contractor, since it rids each job of the terrors attached to figuring an unusual or unknown quantity. In most cases, especially where a building something out of the ordinary is to be put up, and unusual conditions must be confronted, it is necessary that the contractor add a considerable factor of safety, in order to be sure of making a profit. But in a case where the business is handled on the percentage basis, the contractor need have no fear of losing all of his profits because the cost of handling a new proposition was greater than it was expected.—The Building Age.

A New Preservative.

Dr. Allan F. Odell, assistant professor of chemistry in the Louisiana State University, struck by the waste practiced by the enormous lumber camps of his section of the south, especially those that produce cypress lumber and shingles, started an investigation to see if some use might not be made of the sawdust. He had a theory that the quality in the wood that resists all rot influences might be extracted,

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This welding costs more than riveting or cemented joints.

will ever open that seam again.

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We use steel because it heats up quicker, radiates faster, and is more economical in fuel than a cast iron furnace. Now, while you think of it, won't you drop us a postal card, and let us send you this welded sample and also our booklet telling how houses may be successfully heated with furnaces, and how our plan of selling, direct from factory to consumer, will be an advantage to you.

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SPLINTERS AND SHAVINGS-Continued

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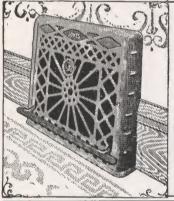
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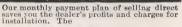
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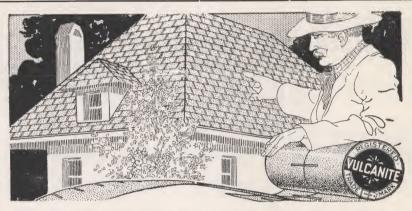
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